A multinational study of mini-company experiences

Findings from three master student projects

by

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The Eastern Norway Research Institute (ENRI) was established in 1984. Since 2011 the institute has been organised as a limited company co-owned by the Hedmark and Oppland county authorities, Lillehammer University College, Sparebanken Hedmark and the Eastern Norway Research Foundation. ENRI is located in Lillehammer, but also has an office in Hamar.

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This research memo presents empirical findings from three master student projects in the Innovation Cluster for Entrepreneurship Education. The field studies were done in January and February 2017, and they focused on students’ and teachers’ experiences with the JA Company Programme (CP). The three areas investigated were teachers’ reflections on their role as mini-company teachers, whether mini-company participation can increase students’ self-efficacy, and whether mini-companies are a suitable working method for students with special needs.
PREFACE

The project Innovation Cluster for Entrepreneurship Education (ICEE) was assigned by the European Commission through the Erasmus+ programme. The main partner in the consortium with responsibility for the practical implementation was Junior Achievement (JA) Europe. The Eastern Norway Research Institute (ENRI) was responsible for the research part of the project.

ICEE was an education policy experiment. 20 upper secondary schools in Belgium, Estonia, Finland, Italy and Latvia participated in a 27-month field trial using mini-companies. The research in ICEE was based on a combination of qualitative and quantitative methods. Survey data was gathered over two school years with more than 12000 respondents (students, teachers, parents, and business people). In the qualitative study about 150 informants were interviewed in all five countries.

Five master students did their master thesis projects through ICEE. This memo summarises the findings from the studies done by the students Julie Aae, Ingunn Elder and Ruth Ida Valle, all from the Department of Education and Lifelong Learning, Norwegian University of Science and Technology (NTNU). Daniel Schofield, Astrid Margrethe Sølvberg and Vegard Johansen were supervisors. Vegard Johansen was also responsible for the research conducted in the ICEE project.

We wish to thank the informants who so generously lined up for interviews and shared their experiences with us. Without their participation this research would not have been carried out. Finally, we would like to thank JA Europe and the rest of the partners in the project for an interesting and exciting project!

Lillehammer, March 2017

Vegard Johansen
Project Manager

Tonje Lauritzen
Research Manager
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1 INTRODUCTION

In February 2015, a three-year research project led by Junior Achievement Europe (JA Europe) started. The project was called the Innovation Cluster for Entrepreneurship Education (ICEE), and it was funded by the European Commission under the Erasmus+ programme. 14 partner organisations took part in the project, including five national ministries (Flanders/Belgium, Finland, Estonia, Italy, Latvia), five national JA organisations in the same countries, and three research institutes (the Eastern Norway Research Institute (ENRI); the Foundation for Entrepreneurship - Young Enterprise Denmark; and the Faculty of Economics at J.J. Strossmayer University of Osijek). JA Europe conducted the practical part of the project, and ENRI was responsible for the research part.

The ICEE project analyses the impact of entrepreneurship education (EE) and the drivers and hindrances of EE. It aims to understand what is needed to reach the European goal that every young person has a practical entrepreneurial experience before leaving compulsory education. The project has a special focus on the mini-company method. A mini-company is a practical entrepreneurial experience based on a learner-driven method in which students work in teams and start, run and shut down a mini-company. The most widespread mini-company programme is the JA Company Programme (CP) which has reached millions of students in countries all over Europe and beyond. About 300,000 European students across 39 countries enrol in the programme annually, and the programme is available for students in both general and vocational schools. In CP, students from age 15 to 19 have the opportunity to set up and manage a mini-company during a school year under the guidance of teachers and business volunteers. They can also participate in competitions and trade fairs where they demonstrate what they have learned and achieved.

The research in ICEE used a combination of qualitative and quantitative methods. The fieldwork in the qualitative study in 2017 was done in January/February (Estonia, Finland, Italy, and Latvia), May (Belgium), and November (Finland and Italy). About 80 informants were interviewed individually or in groups. Findings related to impact, drivers and hindrances of EE were presented in the final report from the project. This memo summarises findings from three master thesis projects, and they focused on:
• Which reflections do teachers make on their role as mini-company teachers?  
  (Ingunn Elder)
• How can mini-company participation increase students’ self-efficacy? (Julie Aae)
• Are mini-companies a suitable working method for students with special needs?  
  (Ruth Ida Valle)

Chapter 2 introduces the national strategies on entrepreneurial education in the countries 
examined: Estonia, Finland, Italy and Latvia. This presentation is based on previous 
presentations of these countries in the ICEE-project (Eide & Olsvik, 2017; Johansen, 2018). 
Chapter 3 is a brief presentation of the research methods used in the three studies. 
Chapters 4 to 6 present the findings from the master thesis projects.
2 THE NATIONAL STRATEGIES ON ENTREPRENEURSHIP EDUCATION

2.1 Estonia

Since 1994, when Junior Achievement Estonia was established, EE activities have been carried out in Estonia. Mostly, EE was provided only at general, vocational and higher education institutions. From 2016, as a continuation of the “Lifelong Learning Strategy 2020”, the Ministry of Education and Research decided to develop EE at all levels of education. The Programme for Entrepreneurship Education is based on three key principles: EE should be taught at all levels of education; EE should be developed in collaboration with the universities; and EE is to be understood as something relevant for all students, not just future entrepreneurs.

In addition to the Ministry of Education and Research and other ministries, the actors involved in EE are educational institutions, employer unions and organisations such as JA Estonia. They work together with the enterprise centres in establishing EE in each country. According to the Ministry of Education and Research, the main drivers for the implementation of EE are the collaboration among different stakeholders (ministries, business organisations and schools), and they have also agreed on a strategy for EE. The main hindrances are lack of competent experts of EE to develop the methodology and to evaluate the impact of EE.

2.2 Finland

The Ministry of Education and Culture and the Ministry of Economic Affairs and Employment are the two main actors in EE at the ministerial level. To have a unified approach, a steering group with people representing organisations, unions, educational institutions and local and regional authorities has worked on the implementation of EE since 2009, and they are currently replaced with a new Entrepreneurship Management Group. Many of the actors in the steering group are united in YES-centres, which work at the practical level and are involved in projects and events (teachers’ seminars, teaching materials, arranging activities for students).
Finland has established a progression model for implementing EE at different levels of its educational system. The national curriculum was updated in 2014-2015 with a strong emphasis on EE, focusing on work skills and entrepreneurship as a multi-disciplinary approach. An important aim is to convince universities to make EE part of their teacher education. Continuous evaluation and research are also an important part of the Finish strategy, especially by providing measurement tools for teachers to evaluate their own initiatives. The Ministry of Education and Culture considers that the strong emphasis on EE is an important driver together with the high unemployment among young people. The ministry considers rigid attitudinal structures, a rigid educational system, teacher education, and lack of involvement from parents to be important hindrances.

### 2.3 Italy

The Ministry of Education, Universities and Research is the main actor introducing EE in a systematic way in the education system in Italy. An important effort is a new law, which is making the former ‘school-work exchange’ into a mandatory programme, comprising EE at the upper secondary level and in vocational schools. If students are not able to set up real school-work exchanges, then business simulations are offered. The important actors within EE also include schools, business associations and organisations such as JA Italy. A limitation is that EE is not provided in the initial teacher training.

According to the Ministry of Education, the most important drivers for EE were the compulsory school-work exchange and other EE-projects promoted by the ministry. The most important hindrances were lack of both business cooperation, specific teacher preparation, involvement by parents, and lack of integration of EE in the official curriculum.

### 2.4 Latvia

There is no specific strategy of EE in Latvia, but the broad Education Development Guidelines 2014–2020 have some objectives related to EE. Teaching topics that foster the development of entrepreneurial skills has been adopted, collaboration between vocational schools and apprenticeship enterprises also promotes the development of entrepreneurial skills, and the standards for initial teacher training underline that entrepreneurship should be included in all study programmes. Different short-term EE-initiatives have been established across the country, partly initiated at the ministry level and partly by educational institutions, NGOs and private businesses. The largest provider of EE is JA Latvia.
The National Centre for Education considers that they together with the Ministry of Education and Science, JA Latvia and some schools are the most important drivers for EE. The most important hindrance is time available for EE in schools.
3 Research methods

3.1 Data collection

The ICEE project included 25 schools; five were control schools and twenty were schools where CP was tested over two school years. Some of the schools had previous experience with EE and CP, and some were without such experience. The selection of participating schools was based on having a diverse distribution of the following criteria: education programs (vocational and academic schools), size (small and large schools), and geography (schools in cities and non-urban areas). The qualitative studies in 2016 and 2017 covered half of the test schools; five schools in 2016 and five schools in 2017. In each country one general/academic school and one vocational/technical school was visited throughout the study.

This memo covers some of the data collected at four school visits in January/February 2017. As illustrated in Table 1, the main source of data used in the memo is from interviews with students (studies in Finland, Italy and Latvia) and teachers (studies in Estonia and Italy). Data from interviews with parents (Italy) and teachers (Finland and Latvia) and students (Estonia) were used to contextualise the findings. In addition, the researchers observed mini-companies in action to get an impression of the location for mini-company work and how the students worked together. The first day of the visit at the school would also include a walk around the school premises together with informal talks with the school contact person (and at times also the headmaster and the JA coordinator).

Table 1. Overview of the data collection.

<table>
<thead>
<tr>
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<th>Estonia</th>
<th>Finland</th>
<th>Italy</th>
<th>Latvia</th>
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<tr>
<td>Observation CPs in action</td>
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<tr>
<td>Interviews students</td>
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<tr>
<td>Interviews teachers</td>
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<tr>
<td>Interviews parents</td>
<td>✔</td>
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<td>✔</td>
</tr>
</tbody>
</table>

Each school had a contact person that arranged for the interviews. All interviews were done in a separate room (meeting room) within the school premises. The contact person was asked to select informants based on these guidelines:

- **Students**: Group interviews should include 4-7 students from different CP
• Teachers: Group interviews should include 4-7 teachers involved with CP
• Parents: Group interviews should include 4-7 parents with students involved in CP
• Mentors: Group interviews should include 4-7 mentors involved with CP at the school
• Special needs students: In the individual interviews with students with special needs we suggested a mix of students with various categories of needs, including students with disabilities (e.g. ADHD, mobility disabilities), specific learning disorders (e.g. dyslexia), and other special educational needs (e.g. linguistic disadvantage). It was a preference that there was an IEP (individualized education plan) and/or the student had a support teacher.

Most of the group interviews included five to six students from different mini-companies. There were also five participants in most of the group interviews with teachers, and we met teachers from various education programmes (vocational, technical, academic) and subjects (economy/business and non-economy/business). The interviews with the mentor and parent group were done with three to four participants, and we had the opportunity to talk to parents whose sons/daughters were in different mini-companies. Finally, we had hoped for interviews with four students with special needs, but we could only do interviews with two of them.

In all the interviews, a semi-structured interview guide was used with some questions written in advance. Group interviews and the individual interviews lasted for approximately one hour each, and all the interviews were recorded. There were two researchers in most of the group interviews, and then one researcher headed the conversation and the other researcher took detailed notes. There was only one researcher in the individual interviews and for some of the group interviews, and then the researcher focused headed the conversation.

The working language in the interviews was English, a second language for both the researchers and the informants. In some of the interviews we used an interpreter, while in other interviews interpretation was unnecessary, since the informants spoke English fluently. The interpreters that we worked with, were bilingual and they had an intermediary role in the interviews; translating questions in English to the mother tongue and translating responses from non-English speaking participants to English.

Using an interpreter to conduct interviews represents a potential threat to data-validity at various points in the interview process. From the first year of conducting qualitative research we learned that it was an advantage, if the interpreter not only had linguistic abilities, but also in-depth knowledge of EE (Eide & Olsvik, 2017). Thus, all interpreters had very good knowledge of EE. One threat to data-validity is that the researcher has no possibility to ensure that the interpreter has translated the questions in the right way. Therefore, we spent time with the interpreters before the interviews and discussed pre-written questions to clear up any potential misunderstandings. We also explained
wordings and concepts that were used in the project and ensured that the interpreter understood the informants’ need for confidentiality and anonymity. A second threat is that the researcher has no possibility to ensure that the interpreter translates the interviewee’s responses in the right way. Sometimes we witnessed that the informants helped the interpreter to present their responses in the correct way.

It must be noted that informants who participated in this study were selected by the schools (and their contact person). The possibility of biased unrepresentative selections must also be considered. In qualitative research we talk about getting an informative sample of informants (and not a representative sample). In that respect, it is important to have informants who can describe and reflect upon their experiences in a way that gives us extensive information about a phenomenon or a case.

### 3.2 Interviews

The focus group method combines elements of interviewing and participant observation and provides an opportunity to probe the participants’ cognitive and emotional responses, while also observing underlying group dynamics (Vaughn et al., 1996). The interview is carried out as a discussion of questions between the participants, and the moderator is there to help to encourage a good discussion (Massey, 2011). A group interview will develop through the group dynamic that naturally arises along the way, and this dynamic contributes to provide the interview with meaning.

One benefit is that focus groups can uncover the complexity of various situations. Participants are invited to converse around a topic, so that underlying norms, rules, individual attitudes and values come to the surface. It is a prerequisite that the participants share a mutual understanding of the topic being discussed, and, therefore, have something in common. At some occasions, focus groups may assist participants to come to a mutual understanding of issues under discussion (Wibeck et al., 2007). By selecting topics that the participants find personally relevant, focus group interviews can contribute to increased consciousness and the development of critical reflection around the participants’ own practices.

Another benefit of the focus group method when doing cross-cultural studies, is the cultural sensitivity it facilitates. It is often called an ‘empowering method’ in which the informants have the power to define and explain phenomena, incidents or specific experiences. However, unequal amounts of information will be gained from each informant in focus groups. Still, this type of interview enables participants to reflect and build upon each other’s statements, which in turn result in good and comprehensive data. The facilitator’s job is to drive the dialogue forward, while attempting not to play a prominent role.
Over the two years of qualitative focus group interviews, students in various countries have expressed similar experiences and opinions. On a critical note, we could have obtained even more comprehensive data, if we had spoken with more students who did not master mini-companies very well. The quantitative data tells us that some students (a minority) do not master nor like this working-method well enough.

In-depth interviews were done with three informants in the special needs education study in Italy. The topic for these interviews were mini-companies as a working method for students with special needs. In these interviews, the researcher had a list of specific topics and some follow-up questions, and she, thereby, retained some control over the direction and content of the interview.

In-depth interview is one of the most common methods of data collection in qualitative research. One limit is that the quality of the in-depth interview is limited by the remind of the participant, the ability of the participant to articulate his or her experiences within the timeframe of the interview, and the ability of the researcher to ask the “right” questions to prompt more detailed discussion. Thus, in the Italian study, the interviews with the students were supplemented with an interview with a teacher and observations at the school.

The findings from individual interviews and group interviews will also depend on how the interview is constructed and the questions are designed. A semi-structured interview guide was used for all the interviews. The researchers emphasised the use of open questions and questions that led to reflection. They also stressed their own external role in the ICEE project and assured the informants that all data would be treated anonymously. It is of great importance that informants feel that they can speak freely without the risk of having to defend their views in retrospect.

The team of students and supervisors arranged two research seminars to share our experiences. First, we met to work on the development of research questions and to prepare for the data collection, then we met again during the concluding phase, where we had the opportunity to discuss our findings. These seminars were valuable, since we managed to compare and confirm similar experiences in various countries. As such, these seminars may have strengthened the validity of our findings drawn from studies conducted in different countries.
4 STUDENTS WITH SPECIAL NEEDS (ITALY)

This chapter presents findings from the study done by Ruth Ida Valle (2017). Her research project investigated whether the principle of inclusion was upheld for special needs students in EE. The question addressed was: “How does it feel to take part in a mini-company for special-needs students?” The project was carried out in Italy, and her master’s thesis supervisors were Daniel Schofield and Vegard Johansen.

4.1 Research focus

My desire in taking part in the ICEE project has been to shed some light on student experiences with mini-companies, including a focus on those who face extra challenges during their school life. I have chosen this focus based on my specialisation in pedagogy, which is special pedagogical needs. For this reason, I wish to look at students with special needs who are taking part in EE. I have almost no previous experience neither practical nor theoretical of EE. I, therefore, saw this project as an opportunity to learn more about what this implies, and I approached it with an open mind. To limit the study further, my goal has been to examine how the principle of inclusion is maintained in the teaching and work of the mini-company as seen from a student perspective. Inclusion of students within the school system has been a major issue in special education. This is a complex, but highly relevant issue in today’s schools and is also dealt with in their plans and regulations. I hope that my research project can provide a relevant contribution to questions of how best to organise entrepreneurship teaching for special-needs students.

4.2 The selection of participants

Italian law no. 107 from 2015 makes the formerly optional “school work exchange” programme compulsory for students in Italian general and vocational education (Palumbo & Brancaccio, 2016). This implies 200 hours in the general/academic studies and 400 hours for vocational schools over three years in upper secondary school. The change to obligatory participation increases awareness of the importance of entrepreneurial skills and EE in general. To show the advantages and possibilities of EE, guidelines have been laid down in respect of the responsibility of schools in terms of entrepreneurship teaching in Italy. Although precisely what is done and how it is carried out is up to the individual schools.

I had the opportunity to visit a school that had a vocational programme area to gain greater insights into how this school uses EE and to collect data for this study. The school had a strong focus on entrepreneurial qualities, by using practice deployments and company visits. Both academic coordinators and several of the teachers were very familiar with entrepreneurship based on their own experience as entrepreneurs and due to extensive work with entrepreneurship in the school. At this large school, students in the fourth year
worked with mini-companies as a subject in its own right. For reasons of anonymity the name of the school or its location are not given here.

For the purposes of this study, the selection of participants has been based on a strategic selection. This means that the participants were chosen based on certain characteristics or qualifications they possessed, which were strategic in relation to the issues and theories addressed in this study (Thagaard, 2013). To find and recruit participants I had help from a contact person at the school. Both the school and age range (15-19 years) were pre-selected. An advantage of their age was that the students were old enough to reflect on their own experiences. Beforehand, I had decided which characteristics and qualifications should form the criteria. The contact persons at the school selected individuals who fulfilled the criteria, of participating/have participated in a mini-company and have some type of special needs (see also subchapter 3.1).

However, there was not a large group to choose from and we ended up with two students, both were boys. Focusing on only two students gave us an opportunity to go deeper into the students’ experiences of participating in a mini-company. The selected informants are providing the actual information about the topic, the data used to analyse and provide answers for the issues addressed by the project. As such, the selection will be significant for the degree of transferability that will be in the results (Thagaard, 2013).

One student was in the middle of the process of completing the mini-company, while the other had completed the mini-company project the previous year. This represented two interesting differences in the stages of the mini-company. In addition, I also asked for a teacher to participate in my study. The criterion for the teacher was that he/she should have had a special-needs student involved in a mini-company. The teacher who was chosen had been responsible the previous year for one of the students I interviewed, which made it even more interesting for me to see how this student’s experiences with the mini-company were perceived from the teacher’s perspective.

The first student (student 1) was a 17-year-old boy studying economics. He was participating in the mini-company at the same time as the interview was carried out. At this point he was three months into the process. This student had dyslexia, which had been identified at an early stage. At the time he started at secondary school he was also attending a centre where he received help with his difficulties. At the time of the study, he stated that he did not notice his problems very much, but he had an individual training plan in English, and thus fulfilled the criteria for participation in this survey.

The other student (student 2) was one year older and studying marketing. He had participated in the mini-company the previous year and had gone through the whole process. His special needs were caused by nerve damage inflicted at birth due to lack of oxygen. This was not only one specific physical problem. He was in a wheelchair and
trained daily to maintain his muscles and physique. In addition, he had dyslexia, for which he had a support teacher to help him with writing.

The teacher I interviewed was the teacher for the mini-company in which student 2 had participated the previous year. He was trained as an economics teacher and had been a teacher since the 1980s, working the last 19 years at this school. He was not trained as a special-needs teacher.

4.3 Findings

I will distinguish between three types of presentations: empirical data, opinion based interpretation and theoretical interpretation. The empirical data consist of descriptions and narratives from the interviews and observations. The opinion based interpretations are my interpretations of these data. The theoretical interpretations are where I look at findings in connection with theories about inclusion. My overall structure divides the material into main categories that have been derived from the empirical data and the theory. I have chosen to call these: Process focus; Collaborative learning; Student in the centre; Involvement and engagement; and Significance of mini-companies.

4.4 Process focus

Under process focus, I show that the programme’s focus on practical issues and on the process has provided the students with insights into their future working lives, as well as their independence. Group work is a characteristic working method of the mini-company, while collaborative learning is one of the categories, which, due to the “forced” collaboration in the mini-company has both provided more unity in the class and led to conflicts. In addition, I will comment on the significance of the programme by having the students in the centre and of the students’ own influence, organising and decision-making within the mini-company. One of the students was very engaged and experienced working with the mini-company as very important which is an illustration of the potential that lie in this working method for special-needs students, while the other student gave the opposite impression. This reminds us that there are nuances and that there remains more to investigate, if we are to gain a better understanding of how inclusion is to be maintained in a mini-company. I will deal with this in more depth in the section on involvement and engagement, where attention is paid to obligations and individual involvement. In addition, I will give an account of an analytical discovery in which I observe the possibility of a “spiral effect” due to the inclusion criteria. I will deal with the benefits gained by the one student after the completion of the programme in the section on the significance of the mini-company which also focuses on interaction and self-confidence.
I would like to begin by presenting one of the most essential elements of the mini-company; the practical work. The mini-company has a strong focus directed towards practical learning situations. This is something that previous studies point to as one of the strengths of EE for special needs students (Johansen & Somby, 2016). What is particularly characteristic about mini-companies? As the teacher said, the students here are working with something “real” as opposed to reading about it in a book, and they are learning to be creative. Running a mini-company is a relatively long process and takes more than an academic year for these students, and the process contains several elements and stages that are distinct from regular teaching.

### 4.4.1 The future and working life

The practical process based work was something that student 2 spoke about. He spoke of the previous year’s class project, in which working in such a practical manner was something he had not experienced so far. A mini-company is bound up with a work process that provides the students with the opportunity to direct their focus towards their future and their working life. As student 1 observed, this prepares an individual for work or for starting his own company after the completion of his education. However, the focus on practical processes is not merely concerned with the future, but, as student 2 noted, it is important that the students who have chosen a vocational education are enabled to work with their trades as opposed to merely being taught and reading about them. Student 2 suggests, as I understand it, that this means becoming good at the trades with which one is going to work, in addition to the expectations that students have about what they will learn when they begin school.

In the group interview with parents in Italy, the parents spoke about the programme’s focus and emphasised that the work in a mini-company in many respects mirrors real working life. They stated that getting familiar with this type of work, even when still in school, could help a student to realise at an early stage whether they like this type of work and are suited to it. It was frequently argued that the focus on the process and on the practical work was significant for several students and can have affected more than purely the work itself. This is something that emerged in all the interviews, that everyone seemed very positive towards this way of working, even in the group interviews that I conducted.

I would draw attention to one of the inclusion dimensions identified by Olsen et al. (2016): the academic dimension, in which students should be enabled to draw maximum benefit from the teaching. Under this category, I place one of the inclusion criteria of the study: value and active participation. Value is based on the student learning what he is supposed to and has the potential for. As I see it, the programme’s practical focus permits several possibilities in this respect. Another of the criteria listed here – active participation – is also relevant, since it is concerned with the student being involved in a meaningful activity. As we see, both students, teachers and parents have spoken about how meaningful practical
work is when it involves doing something relevant for a future career. Gaining skills in this way can yield future advantages by preparing for working life and helping to decide if such work is of any interest. This is perhaps especially true of students in a vocational education. Student 2 had also found out what he wanted to do after he finished school. His mini-company had made him especially aware of marketing design.

4.4.2 Independence

In addition to his physical challenges, student 2 had dyslexia, which meant that he needed a good deal of help writing. He had a support teacher who helped him with note-taking, homework and so on, and who accompanied him in all classes. When I asked in the interview what academic support and help he needed in the programme, he replied:

*I didn’t need much help, because the project is really practical. When we do activities where I don’t need to write, I am able to interact with the students and take part in the project at the same level as the other students.*

I interpret student 2’s comments as suggesting that the focus on practical work provides an opportunity for greater independence. When student 2 did not need to work so much with reading and writing as he did during regular lessons, he was able to work more on an equal level with his fellow students. One example is the practical work with the website, where not needing the support teacher, he was able to work independently. This is something that was very significant to student 2, and it was something he returned to several times during the interview. Thus, independence is one of the main findings in the study, and it shows the contribution this working method can make to special-needs students.

As I understand it, student 2 was both academically and culturally included in the classes (Olsen et al., 2016). Cultural inclusion means preserving the diversity of the learning environment with which the student can identify (Olsen et al., 2016) and I regard this as an important dimension when considering special-needs students. The concern of special-needs students are to feel that they fit in as a part of the learning environment. It seems to me that student 2 had experienced this when he spoke about participating at the same level as the other students. To make this possible it was important for him that the support teacher was not present, and that he could work independently; since he was not only writing, but also doing practical work. Inclusion is not merely a matter of academic elements such as student learning and working methods; it includes a focus on community and on the group of students involved in the collaboration. This brings me to the next category: collaborative learning.
4.5 Collaborative learning

Perhaps the most apparent element of mini-companies and the data collection was group work and collaboration. Group work is also a key aspect in terms of inclusion. In a mini-company all the students must collaborate in the process of the project, which creates an opportunity to use the student collaboration systematically to also meet the students’ social needs and to train their social skills (Skaalvik & Skaalvik, 2014). This form of collaboration appears to constitute a good form of learning for many individuals.

4.5.1 Togetherness in the class

The students in this school worked as a class on a single project, so the group size was around 25 students. The whole class took part in decisions about the product and what to do. The class was then divided into smaller groups, each one with its own areas of responsibility (one group for instance, was responsible for finance and another for marketing), while the whole class worked together on larger issues. How these sub-groups were allocated and how responsibility was shared, varied from class to class, but common for all projects was the general principle of one product per class. When my data collection was done, the students had worked on the programme for about three months. Student 1, who was working with a mini-company at this point, had many positive things to say about the group work:

I like it. It is easier to work in a group. It’s more beautiful to see when different people work together than doing the same things just on your own.

He found it both easier and more “beautiful” to work in groups. He explained that the “beauty” lay in what several people could achieve together as opposed to working in isolation. In addition to the product of collaborative working, student 1 talked about his good relationship with his class. Everyone knew each other and were good friends, so he had not experienced any conflicts within the class, but he said that he could envisage that the most difficult aspect with group work was taking joint decisions. He supported the idea of group work and said that “the more we are, the better we work”. He did not experience a problem with being many, because he felt that being the same age and knowing each other well, made it easier to make decisions and to collaborate. The interview with student 2 contained many of the same elements; he too had a good relationship with his classmates and had not experienced any conflicts. Student 2 said about his class that they were very open and caring:

The students and teachers are very welcoming and caring. It’s a great class with great students.

He added that his class had been very helpful, offered assistance both with his wheelchair, with finding into his place in the classroom and getting him out at break times. They also
helped him with academic work, though this help was sometimes reciprocal. I got a positive impression of this student’s relationship with his teacher and classmates, in which acceptance and recognition appear to have played a central role in the classroom.

Something that struck me during the interview; when speaking about student 2’s class and his fellow students, I noticed that he referred to them only as “friends” or “his friends”. I had not previously raised the issue of friends or friendship during the interview. The teacher spoke of having good friends within the class and said that this meant a great deal for student 2. In addition, when I asked the teacher in concrete terms what was most important for student 2 in the class, he mentioned working in a group. Both student 1 and student 2 said that they had good friends in their class.

In an inclusion perspective, I would highlight the social dimension in what is described up to this point, enabling the students to find belonging and security in their class (Olsen et al., 2016). An inclusion criterion that is natural to point to in this connection is community. The reason for highlighting community is its relations to the factors of recognition and acceptance. My impression was that both students felt like being part of the group, and not in any way excluded from the community. Student 2 expressed especially the significance that this had for him. We have already mentioned that being able to participate in the work on an equal footing with the others in the group was important to him, in addition to his observations that they were caring and helpful. His teacher spoke of them as his friends and said of student 2:

_He likes very much to work in the group. He was involved with his friends, and so he was very relaxed, and he worked with joy._

This is the teacher’s perception of the student’s position in the group; that he was very involved and relaxed. Student 2 was also an active participant who worked with joy, according to the teacher. For student 1 it appears that things were more meaningful when he was working together with others rather than doing the same tasks alone. One of the reasons for this interpretation is the impression given in the interview with student 1, in which the only aspect of the programme that was particularly positive for him was that of working together with his classmates.

This kind of interpretation should not overshadow the fact that the activity will not necessarily be meaningful for the student simply because it is rooted in group work; but it is the group work itself that is the meaningful element. In addition to community work and active participation, student 2 gained a benefit, as I see it, not merely in terms of academic development, but also of social development. It was clear from the interviews with student 1 and student 2 that they had good relationships both with their fellow students and teacher, and that the class environment in general was good. Student 2 spoke of his teacher being “really great”, while student 1 also liked his teacher and regarded him as a kind
person. Relational theory, which is important when discussing learning environments, shows the significance of good relationships with classmates and teacher for a student’s enjoyment, learning outcomes and development (Drugli, 2012; Olsen et al., 2016). This nevertheless requires an increased focus to gain a better insight into the significance of relationships for special needs students in mini-companies.

### 4.5.2 “Forced” collaboration

We live in a world together with other people, and in many jobs, we depend upon their collaboration even though most of us hold differing views. The same applies in schools, which contain a wide diversity of students. Collaboration in the school is nothing new, so what is so special about collaboration in mini-companies? There are different ways of organising collaboration, reflecting not the least what the subject of the collaboration is to be. One parent observed that since the class must work in a particular way in mini-companies, the students are “forced” to collaborate, which gives the class greater unity. Student 1 also noted that the class had become more unified from working together on one project. In this connection, I wish to highlight a point made earlier: the long working process inherent in the mini-companies, which includes the time dimension within which the group works through several stages. Student 2 said that “teamwork skills” was what he had learned most through working in the mini-company:

> I think the main thing I learned of working in a group is the teamwork abilities. Because you work a lot in the team, that is something you really strengthen, when you do the programme.

I regard learning to collaborate as both a social skill and academic learning. Student 2 learnt a great deal from working in groups, both in terms of having respect for others and listening to others, as well as having to contribute to the group. One student in the group interview observed that this kind of collaboration could also reinforce friendships, which takes us back to the category community feeling in the class. The teacher of student 2 also experienced the same with his group, in the sense that student 2 got closer to his fellow students by working together with them in this way. I would not exclude the possible influence of other factors in this, but the teacher had a “collaborative approach” in his practice, both between himself and his students and between the students. Collaboration was thus an important principle for him.

From the inclusion perspective, I am examining the terms community and benefit. Through need to collaborate, several students experienced that the community became more cohesive. As student 1 noted, we work better together when we know each other, which is an observation I interpret as being about good relationships. In addition, I regard it as significant that one should feel as a part of the community; through knowing one another and collaborating well with each other.
The term benefit is concerned with having space for academic and social development. We have seen that student 2 has learned this from working in a group and collaborating, while student 1 gave a different answer. Even though he preferred working in a group, he had not learned anything new from the group work in the mini-company, so this did not make a great difference for him. I interpret this as suggesting that although he enjoyed working with friends, this has not affected his learning outcomes from the mini-company. We see that the benefits for the two students have been different in terms of group work and collaboration. There were considerable differences between the two students in general and in terms of their special needs, and also that one was still working with the mini-company, while the other had completed the process. These differences, however, have given me some insights into how differently mini-companies can be experienced, even at various stages in the process. I am referring to how student 1 and student 2 experienced collaborative work and what they learned from it. For that reason, I regard it as important to identify which factors were dissimilar, to find out the reasons why and to identify issues that need to be accounted for.

Conflicts are also something that can occur, and I mention this to show the nuances of collaboration. Several teachers noted that some students had experienced conflicts in mini-companies. During my observation of an entirely different class, I spoke with the teacher in charge. She told me that a small group of relatively strong personalities within the class exercised a good deal of control and often ended up in conflicts with each other and with other students. This could be a challenge, she stated. There may be several reasons why student 1 and student 2 did not mention that they experienced any conflicts, but here I will emphasise some possible causes of conflict and their significance for inclusiveness in the class.

4.6 The students in the centre

This main category also represents many of the study’s main findings. The category called the students in the centre is about how the students reach decisions, influence actions and participate in the work. I have formulated some subcategories in this part.

4.6.1 Joint decision-making

The impression I received is that the students feel that they are at the heart of the project, since they can take part in shaping the greater part of the programme. When I asked the students: Who took the decisions? Both said that the students decided almost everything. Student 2 commented that the teacher expressed his opinion about what would be favourable, but it was the students who decided:
All the decisions were in the hands of the students. The teacher could give some advice and maybe his opinion about what was better or less good, but then in the end it was the students who made all the decisions.

Student 2 gave an illustrative description on how the teacher had acted during the programme, and that was that he had been like a “chameleon”. He had not been there much, but was nevertheless available when they needed advice and guidance. This was not a negative quality; quite the reverse, according to him. The interview with the other student, as well as the group interview with students without special needs, had the same perception of the teacher’s role and about who took the decisions in the programme. In the mini-companies the teacher worked together with the students and was one of them and still motivating them and being supportive.

Joint decision making is concerned with all students being listened to and getting an opportunity to have an influence on their own education (Haug, 2014). My finding is that the mini-company method may be very well suited to the following criterion: the students can determine and influence the programme to a high degree. When I began the analysis, I found that this requires an awareness of how this is to be achieved. Is it as simple as just announcing that the students can decide? Does everyone have this opportunity? Joint decision-making is also concerned with the balance between individual interests and community interests (Haug, 2014). This means that we must look more closely at whether all views are considered equally or not. It became apparent to me that this was organised differently from one class to another.

4.6.2 Organisation and decisions

To be able to look more closely at how joint decision-making can be ensured in a mini-company, I will examine the organisation of CP and the management of student joint decision-making. When I spoke to student 1 and student 2, I got the impression that their respective classes had different practices in terms of how decision-making was organised. Two elements in particular emerged; the distribution of groups/tasks and how decisions were made.

When I asked student 1 who took the decisions, we approached the question by talking about his role in the mini-company. He stated that he was part of the finance group and that he particularly enjoyed this task, because this was his favourite subject. It was, however, purely coincidental that he had been given this task or allocated to this group. Student names had been written up and a draw was held to determine who should do what. When I asked who had decided that this should be organised in this way, he said that the students had decided this. Therefore, we ended up saying that for him the division of tasks had been in fact “luck”. He did not say anything about the teacher’ role in this decision.
Things were done a little differently in the class of student 2. Concerning the distribution of tasks and organisation of groups within the class of student 2 the previous year, the student said that this was the only thing that the teacher had gone in and decided. He was very happy with the task that he had been given, but did not have much more to say about the organisation.

It was interesting to hear the response from the teacher afterwards. When asked about how he had organised the tasks in the class of student 2, the teacher said that he allowed the students to try out some tasks first and then have a conversation about it. They then decided whether the student was well suited for the task or whether they wished to swap. This is also a part of his previously mentioned “collaborative approach” in the programme. He tries to find out what the students enjoy doing. The teacher had discovered that student 2 preferred designing and colouring (on the PC), so he had given student 2 the task of working with the marketing group to design the website for the company. This does not directly address the question of how joint decision-making as an inclusion criterion is embedded in the programme, but the point I wish to make is that different degrees of joint decision-making exist in different situations, often due to the teacher and the way in which the programme is organised.

Another difference between the classes of the two special-needs students was how decisions were taken. Student 2 reported:

> Every single step was discussed and agreed on with the whole class, and we took decisions together. If there was something someone didn’t like, we didn’t do it. We removed it from the project.

In the class of student 2 there was a culture for taking decisions through mutual discussion and by unanimity. If anyone had good reasons to disagree, the proposal was defeated and had to be replaced (or changed until everyone could agree). Student 2 had also made a proposal with which the rest of the class had agreed.

A majority of the students took part in the decisions of the class of student 1, and votes were held to determine the outcome. Student 1 told me that his class made decisions on an equal terms: “we all make decisions together”. He had disagreed with some decisions, but he then accepted and went along with the majority decision. This may suggest that student 1 was not a part of the decision-making process in his class, but was aware of always joining the others. Does this represent decision-making on an equal footing? If we consider the two different decision-making practices observed in the two respective classes in the light of the joint decision-making criterion, another significant aspect became apparent during the data collection; group size. In a group of 25 students, it is natural that many opinions will need to be considered, and that some students will inevitably disagree. If all
are able to have their opinions heard, then their influence over the project can be brought into question.

It is possible that in the class of student 2 more attention would be paid to individual opinions and opportunities to influence decisions, and that unanimous agreement was required before decisions were made. It appears to me that by organising a discussion in which everyone had to be convinced of the result, this group found a balance between the interests of the individual and the group. Such an opportunity was not equally evident in the class of student 1, since the opinion of an individual who was not on the side of the majority was not decisive. This needs to be looked at in more depth before reaching firm conclusions, but I am reminded of the group in which the teacher spoke of a small group of strong personalities that decided most things and that was involved in conflicts with each other and with the other students. How were decisions in this class organised? How much were the views of the other 20 students taken into account and was a conscious decision to call this section of the students rather than just one student in the centre.

While it is good to focus on student participation in decision-making, there are arguments that suggest that some of the practices I have seen do not take account of the voice of each individual student nor allow each individual voice to be heard on an equal terms with the others. Many would regard this as an impossible goal. My findings suggest that there are solutions that can alleviate this, as in the class of student 2. In this regard, I question the concept of active participation. Active participation is defined as an opportunity for everyone to contribute to and receive the same benefits from the community by taking an active part in meaningful activities. How meaningful will the project be for a student who has not played a role in any decision-making? How fair is the student’s opportunity to take part in the companionship around this project if the student needs to give in to the others? Some possible answers to these questions are offered in the next section, which presents findings relating to involvement and engagement in the mini-company.

4.7 Involvement and engagement

This main category deals with individual differences, by showing the great diversity of students included in the school’s teaching and in the mini-company. I have called the category involvement and engagement, because involvement was an issue many people spoke about, while engagement was another factor particularly apparent in my findings and which revealed a difference between student 1 and student 2. I will first describe student 2’s involvement and engagement in the project, before dealing with one of my main findings: the “spiral effect” of inclusion. This became apparent to me while analysing the data and looking more closely at the individual factors which were significant for the inclusion of the individuals. The next finding in this category is concerned with the individual’s obligations to the actual project in the mini-company of the class.
4.7.1 The “spiral effect” of inclusion

Starting with student 2’s experiences in the mini-company in terms of involvement and engagement, and based on his own comments and those of his teacher, he seemed very involved in the class project. He was responsible for the design of the website and had much to tell about his experiences at various stages in the process. The teacher told me that student 2 was very able and had many questions. He raised his hand every five minutes, according to the teacher. When I asked the teacher why he thought student 2 had so many questions, he replied:

*It was because he was interested in learning more (...) working in this way made him more interested.*

Student 2 was also interested in learning more and, according to the teacher, the working method was largely responsible for this. I have previously attempted to show how meaningful group work and the focus on practical work was for student 2. I assign this to active participation; since it was evident that student 2 was an active participant and contributor to the project. This is supported by his comments regarding his relationship with his fellow students, where he was not only helped by them, but also helped them in some respects. This shows that he was able to both contribute and receive equally from the community (Haug, 2014).

I extend this perspective to look not only at the direct link between his engagement and his active participation, but also at the reverse. Might some inclusion criteria have been responsible for his engagement and involvement (active participation) in the project? My findings and interpretations suggest a positive answer to this question. It has already been pointed out that this method of working has been beneficial for student 2. Through the mini-company experience, he has had the opportunity to take part in the project on equal terms with the others in his group. He has been accepted and recognised for whom he is, and he has been able to contribute his opinions and to be included in the decision-making. Through the CP, he has learned a great deal about collaboration and also gained an increased desire to learn more. This conclusion is based on a combination of the information I was given and my interpretation of it, but my point is to demonstrate a form of spiral effect that the inclusion criteria is having. Individual criteria are not necessarily more important than others, but I perceive student 2’s experiences in the mini-company as showing us that they influence each other at various stages and levels in the student’s education. If one criterion is enabled, this can have a ripple effect on another one. A feeling of being an equal participant in the group can increase the interest in learning, thus also increase the benefit from the teaching given. Helping make decisions in the project promotes a feeling of active participation, making the learning process more meaningful for the student. The student may receive a significant benefit during the process which makes the programme’s activities more meaningful, creating a positive feeling towards the
community. It was student 2’s narrative of his experiences that made me notice the reciprocal effect that the various inclusion criteria have on each other.

4.7.2 Obligations

It was clear that in terms of involvement and engagement student 1’s experiences of participating in the mini-company were somewhat different from student 2. This can be illustrated by several quotations from student 1 from various stages in the interview. It should be noted that he was about three months into the project process and had not completed it. When I asked if there were any aspects of the project which he disliked, he replied:

For now, no. There is nothing I don’t like, but I don’t know about the future.

He was not dissatisfied with the project, but further questions gave the impression that there was not so much with which he was satisfied either. He said that he did not feel motivated. When I asked whether anything could have been done to change this, either by the teacher or in terms of programme organisation, he replied that there was not and gave the following reason:

I don’t commit so much to the project, because it’s sort of how my personality is. When I don’t get a return, I don’t really commit to working with something.

He was not very committed to the class project, explaining that he regarded it merely as a school project that did not offer any returns. When I asked what kind of a return he wanted, he said money. It is understandable that a 17-year-old boy wants to be paid for creating a saleable project. He believed that the same applied to the other students:

I think that all the other students feel the project is something connected to the school and not something they really care about personally.

He followed this up by saying that even though the product was the students’ idea they did not receive any money for it, which limited the motivation. As mentioned earlier, student 1 was not partaking in much decision making, so I made the suggestion of working individually or in smaller groups in which he could have had more influence. To this he said that he was not especially interested in this type of project, so it would not have made a difference. What is interesting in student 1’s interview is what was said earlier on when I asked whether his interest in the project would have been any different, if he had been able to decide more.

Not really, I feel like I’m not committed so much to this project. Cause it’s not my idea or something I really care about.
He states explicitly that he does not feel committed to the project, because it was not his idea. If I had been sufficiently aware at that point I would have asked how he would have felt if it had been his idea. This approach might have yielded other answers than those given, when I asked only about increased influence in the project in general, but I cannot be certain of this. It could have been an accidental contradiction or that the student gained an increasing feeling through the interview that nothing could have made things any different. Nevertheless, the statement is worth taking into consideration, since it represents what the student was thinking there and then. At that point they were not far into the process, so he did not have much to report on. He was in the finance group and had among other things been responsible for collecting money. By the time I met him he had helped sell some bookmarks and had discussed the project with family and friends. He said that anyone could have done this and that he had neither used his skills nor learned anything new. I asked what he was envisaging further on in the process and received varying answers. He believed that there might be opportunities to use his skills when selling the product, which was a positive thought, but nevertheless he did not expect his interest or motivation to change.

Although we are discussing active participation and outcomes we see that joint decision-making may have an influence on this. At this stage in the project, student 1 stated that anyone could have done what he was asked to do and that he had learned nothing. This appears to me not to be an especially meaningful activity for student 1. Of course, not everything that is done in school or in a mini-company must be meaningful, but when student 1 has nothing else to say about what he has done during the first three months of the project, it seems to me as some changes could and should have been made. In addition, the outcome on his part has not been great, since he has not learned anything new. Student 1 enjoyed working together with his class and liked group work in particular, but the content the group worked with was another matter.

4.7.3 Individual involvement

Since this memo is concerned with involvement, I will also add points made by the teachers, other students and the parents. Since student 1 and student 2 had such differing experiences it was interesting to see how was seen for the other contributors. The same comments turned up in the group interviews with teachers and students underlining that some students are more involved than others. The teacher saw this as one of the weaknesses of the programme. In a large class, it is difficult to involve everyone. During the group interview with the students I got the impression that those who were attending it there were all engaged and competent students. These students spoke about others in their group who were less involved and said that they exploited the fact that others cared more and dealt with everything. A student added that she liked to take control. This student was in the class that I observed and was one of the most active one
during the lesson. The teachers also mentioned that many students tended to hold back and allow those who were the most engaged to deal with everything.

Some suggestions were made, for instance that a reduction in group size would make it more difficult to hide behind more active members of the group. Here we see again the significance of group size in the project. As part of the interview with the parents, a mother said that her son did not particularly like school work. The point she was making was that although her son was probably not the most actively involved in the class project, this was nevertheless the programme in which he was most engaged in terms of his school work. Although it may appear to others that someone is not particularly involved, they may be more engaged than they usually are in the school work. In telling this, I am highlighting the extent of individual differences that must be accounted for, as well as the differing significance of the inclusion criteria for individuals. In an inclusion perspective, we can see the difficulties in making generalisations. The degree of active participation for this student may seem high from his perspective, while seeming very low to other students and the teacher. This also illustrates the complexity of the inclusiveness concept when discussing individuals. As my data show, there are many challenges in making room for decisions for everyone in a mini-company, but such a programme has a great potential for ensuring the inclusion of participating students.

4.8 The significance of a mini-company

This final section in the presentation of findings is concerned largely with outcomes. Here I draw upon many of the benefits to student 2 after his participation in the mini-company. The focus is on student 2, because student 1 had not yet completed the entire programme, so the final outcomes were not apparent from his interview. As we have seen, I believe that inclusion criteria can have a spiral effect; and that identifying which criterion may have exercised the greatest influence on another can be a “chicken-or-egg” question. Other criteria will, therefore, also be relevant in this section, because we will see that the findings for student 2 have emerged gradually during the programme. This category is concerned with the significance of the mini-company for student 2, and it involves some of the study’s most important main findings which are interaction and self-confidence. These two elements emerged very clearly in the interview with student 2, and he expressed how significant they were for him in his previous participation in the programme.

4.8.1 Interaction

Interaction is a word that student 2 repeated several times and that was of great significance for several aspects of his work in the mini-company. In this category I would like to highlight what I regard as the more personal elements that emerged from the interview. Even though they may seem personal, student 2 did not have any problems in sharing them in the interview situation. He had a great deal to say and shared his
experiences and thoughts without showing that this was uncomfortable for him. In some cases, he was more serious telling me about things that were difficult, but while the interpreter was translating them he smiled at me. I have already mentioned student 2’s experience in terms of independent work in the mini-company and that it was important for him to be able to work on equal terms with the other students. When I asked him what he regarded as the most challenging aspects of attending school, he said:

_The most difficult for me would be interaction with other people._

The class involved in the mini-company was the same class as the previous years, so they knew each other well. Student 2 stated that the attitudes of the other students towards him and his special needs was a matter of constant significance, and that he had a constant awareness of how he appeared to the others. This strengthens the significance of two following statements. The first was when I asked how it felt to take part in the mini-company without the need of a support teacher, and he said:

_I feel it’s very important, because being able to work in the mini-company programme without the support teacher made me feel more normal._

The second was when I asked how it would have been, if the class had not been as supportive and helpful as he said that they were. He said that it would have been very different, and not as good:

_...because real interaction happens when a disabled person doesn’t feel like a disabled person any more._

It was important for him to be an equal member of the group, which involved not feeling functionally challenged in terms of interactions, since he wanted to feel “normal”. What is shown here is fundamental to student 2’s positive experiences and making interaction one of my main findings. It is apparent how important it was for him that his special needs should not be in focus or prevent him from taking part in the project on equal terms with his classmates. This had not been possible in the ordinary classroom situation, because a support teacher had been with him. This is important because it is to a great extent related to academic, cultural and social inclusion dimensions, enabling the student to have positive learning outcomes, where diversity is accepted, and he has an experience of belonging and security (Olsen et al., 2016). This is largely concerned with outcomes, but it is also relevant in terms of interaction, companionship and active participation. I interpret both his role as a member of the group and how meaningful the activities were for him, as aspects that were influenced by his opportunity for interaction and for not feeling like a student with special needs.
4.8.2 Self-confidence

Another challenge that student 2 formerly had, was shyness, but the programme had taught him to overcome this. He had to stand on a public platform and present and promote the product to strangers. When I asked how this had been, he said that he had been anxious now and then, but had just breathed deeply and tried to forget the impression he was giving people. When you feel a bit strange or something, he said, you ignore it and carry on. The teacher mentioned in the interview that the programme was excellent for student 2, since he needed more self-confidence and received it through the programme, both by working in groups and by speaking about the product to groups of people, including strangers. Interaction and self-confidence are two of many elements that I regard as essential, if a student is to feel included. Interaction must have to feature a community of equals, recognition and acceptance, with everyone participating and being heard. Self-confidence is also something that students need to better focus on learning; and the school has a responsibility to facilitate this. That student 2 experienced greater self-confidence after the programme is an indication of how successful it was for him; since there clearly had been room for such a positive development. The teacher also regarded this method of working as very useful for student 2:

In other type of work, he was often stressed. In the work of this programme in action, he was more relaxed … and happy. Happy to work.

His ability to relax and find pleasure in the work seemed to me to result from his feeling of independence in a group of equals, particularly without the need for a support teacher. He was also able to show his skills in the practical tasks with which he was working. This leads me to an aspect mentioned by a parent in their group interview, where she spoke of what the practical aspect of this work can reveal to a teacher about a student. I would also highlight what it can reveal to others, including to the student himself. She said that in the context of practical work the teacher was able to see the student “in action”, because not all students are top students or have good theoretical skills. The programme was thus a good opportunity to demonstrate different abilities. This point could have been made in the earlier section about practical work, but I have chosen to include it here to emphasise the significance of practical work within the broader picture, especially for student 2 and the experiences he was able to draw from the programme as a result. The programme presented an opportunity for him to demonstrate that he was able – very able – without the support teacher. Self-confidence is an important outcome that student 2 gained from the programme. By his active participation in a secure companionship, he was, in my view, enabled to experience increased self-confidence and a positive personal development.

I asked student 2 whether he had any suggestions for changes, or what it would take to make the mini-company appropriate for special-needs students. In his reply, the student used the word “include”. He said that the programme needs to be made even more inclusive for special-needs students by ensuring that activities are organised so that all students could take part in it. He also cited a film that makes this point very clearly. The
film is about going out with a person who has functional impairments, but the message, he believed, is transferable to a school situation:

When you go out with a person with disabilities, you have to forget the disabilities, but at the same time know that he or she has a disability.

What student 2 are saying goes to the heart of special-needs education in the school. Students do not wish to be regarded as special-needs candidates, but as the normal individuals that they are. Nevertheless, we cannot forget that they have special needs and that provision for these needs is required. As the teacher pointed out, there needs to be more focus on special-needs students and their individual needs in the organisation of the programme.

4.8.3 Final reflections

The complexity and subjective nature of inclusion represents a challenge with regard to research on this phenomenon and makes general conclusions difficult to make. It is nevertheless of the utmost importance to examine these questions carefully. A key dimension of inclusion concerns organisational aspects; it is in the relationship between individual needs and those of the school as an organisation that inclusion needs to be designed, if the principle that it is a joint responsibility is to be upheld in the best possible way (Olsen, 2013). The teacher plays an important role in the relationship between the individual and the organisation, since he or she is the facilitator between the two.

There are different ways of organising a mini-company. This study has investigated some aspects such as group sizes, relationships, degrees of student self-determination and teacher control. The teacher has a unique opportunity to contribute something different in a mini-company than in classroom teaching, given that some capacity is freed up when the students themselves hold a central role in a project to which everyone is contributing. The teacher can thus become a “chameleon” who is not constantly visible, but who maintains background control of what is going on in the classroom and ensures the inclusion of all students.

In the analysis, I discovered a “spiral effect” that the criteria of companionship, active participation, joint decision-making and outcomes can exercise on each other. If one of these is enabled it will reinforce another, or if one of these is not maintained and enabled, it will have a negative effect on another. This study has shed light upon challenges such as too little involvement, conflicts and different individual needs, but has also shown that the potential is great and the opportunities so many, that it is important not to take them for granted. For special-needs students, the focus on practical work can be very significant in both academic and personal terms. Different academic expectations and the opportunity to
demonstrate other abilities are a strength of the programme and create a potentially good alternative arena for special-needs students.

I nevertheless conclude, that the findings in this study suggest that mini-companies do not represent a “quick fix” for all students. It will not necessarily be the case that anyone who needs an alternative arena to ordinary classroom teaching will find that a mini-company in itself is a sole and simple solution. This is the especially the case, since EE is not obligatory in all countries in Europe. Since the European Commission wishes to achieve this goal, we must look into ways of organising it to ensure that all students will be included in the best possible way. What we need to ask as researchers when looking at students is what works for whom and in what context (Tangen, 2012) and in such a way see the individual in relation to organisational issues.

Finally, I would like to highlight a few issues that have occurred and which are worth mentioning. For me this project has been a complex process, very demanding and very informative. Taking part in the ICEE project has given me a feeling of being part of something larger, and, thereby, more meaningful for me. In addition, it has been a strength for all the master’s projects to have a group of students and supervisors who have met and shared their experiences. There will always be things that could have been done differently. Research is a complex activity; but the most important for me has been to carry it out as credibly and relevantly as possible. What I would like to emphasise in my concluding reflection relates to the complexity of the chosen topic. Special needs, inclusion and EE are three areas which are very complex to define and research. In this work, I have portrayed only some of the complexity regarding inclusion, individual differences in terms of special needs and different ways of organising a mini-company.

It was very interesting to listen to two students with different special needs and about their different experiences. This provided an even greater understanding of how varied mini-companies experiences can be, and an even clearer picture of which aspects of organising mini-companies have a direct effect on special-needs students. This is essential to gaining a better understanding of the topic. With respect to the organisation of mini-companies, I only had the opportunity to carry out data collection in one school, which meant that much of the basic organisation was similar. For purposes of comparison it would be a further strength to look at practices in another school and how students perceive these.

Naturally, the subject of this study is one that can never be fully researched and not many findings can be claimed to be universally applicable. My contribution is merely to point in the right direction and identify factors that should be borne in mind when organising a mini-company to ensure inclusion of all the students. My conclusions and the data gathered in this study suggest that there are several elements and situations in mini-companies that could and should be the subject of further research with the aim to gain a better and deeper understanding of what a mini-company involves. In general, it would be
an advantage to take this further, look more deeply into it and examine it in different situations.
5 STUDENTS’ SELF-EFFICACY (FINLAND AND LATVIA)

This chapter was written by Julie Aae. The issue addressed by her study was how working with a mini-company can enable an inclusive learning environment in which students receive an increased expectation of mastery. She did her master’s thesis project in Finland and Latvia. Her supervisors were Daniel Schofield and Vegard Johansen.

5.1 Research focus

Through my teacher training and studies in special education I have learnt about many principles regarding adaptive teaching methods and creating an inclusive classroom. Through work and teacher practice, I have asked myself whether the teaching being carried out enables an inclusive learning experience. It is claimed that adaptive teaching is the main factor needed to create an inclusive learning society. This sounds logical, in that a perfectly adapted teaching will be appropriate to all students, and, thus, lead to an inclusive learning environment. The problem is that such perfectly adapted teaching is very difficult to achieve. As a teacher and special-needs teacher, I want to find a way of teaching that will ensure that all the students can participate and receive a feeling of accomplishment. Even if this appears ambitious, I believe it is necessary to look at new forms of education to approach this goal.

In my experience, teachers generally tend towards a teaching method with which they are familiar. Working with a mini-company can be viewed as a contrast to what we are accustomed to seeing with traditional classroom-based teaching methods. I, therefore, wish to examine mini-companies as a teaching method and consider whether it meets student expectations or not. I want to see if the students gain a sense of achievement and whether this teaching method can facilitate an inclusive learning experience.

5.2 Selection of participants

Qualitative studies mainly use strategic selections of informants. My informants include students and teachers taking part in the “Mini-Company” programme during the school year 2016/17. At the school that I visited in Latvia, entrepreneurship was an important part of economics. The students had chosen this subject themselves, but mini-companies were a mandatory part of the course. The school I visited in Finland ran a vocational study
directed towards business and trade, and mini-companies was a voluntary field of choice available to the students at this school. The students involved are between 17 and 18 years of age and are in the second year of upper secondary school. The teachers teach at the same schools that the students attend. The contact persons in JA Finland and JA Latvia, as well as a teacher at the one school and the head teacher at the other, had the main influence on the selection of participants, while I had minimal control over and little influence on the composition of the selection.

In total, the selection of informants used in the study consists of twelve students and nine teachers divided into two student groups and two teacher groups; four focus groups in all. The students were divided by five students from the school in Finland and seven from the school in Latvia. All the students took part in a student business and in JA’s “Mini-Company” programme. At the Finnish upper secondary school, the interview with the teacher was carried out with two teachers who had both worked with the programme over many years. In Latvia, the interview was carried out with six teachers and the head teacher, while one of the teachers functioned as an interpreter. The teachers I interviewed in Latvia came from the same school.

5.3 About the learning environment

The issue addressed in this study is how a mini-company can create an inclusive learning environment in which the students gain an increased anticipation of achievement and mastery. An inclusive learning environment is a rather broad term, and Skaalvik and Skaalvik (2014) suggest that the concept encompasses the environment, atmosphere, social interaction and decisions that the students encounter or are being asked to do at school. They also observe that it would be useful to differentiate between: a) the learning environment as it is organised and constructed, including the attitudes and view of learning which form the basis for it; and (b) the learning environment as experienced by the students. The aim of this study is to examine more closely the student’s experience of working with a mini-company, thus making it natural to observe the learning environment as perceived by the students.

Skaalvik and Skaalvik (2014) observe that there has been an increased focus on inclusive education during recent years, even while individual special-needs teaching also has increased in extent. This may suggest a heightened focus on social inclusiveness in education, and thus a reduced individual perspective, and this may result in individual students becoming victims of ideology. For this reason, I want my study to highlight students’ perceptions of their learning environment, thus focusing on an individual perspective of the concept. An individual perspective of inclusive learning is concerned with what Skaalvik and Skaalvik (2014) call “experience criteria” which is concerned with how students perceive the school in social, cognitive and emotional terms.
If we are to determine whether a learning environment is inclusive or not according to this definition, it becomes necessary to observe the student’s experiences of and expectations of achievement and mastery. A strict definition requires that for a learning environment to be inclusive, all the students must participate and experience mastery. It is thus, my desire to discover whether a mini-company can create a learning environment where this is the case.

Skaalvik and Skaalvik (2014) also claim that it is meaningless to take account only of the students’ experiences. If the elements creating the student’s experience are to be changed, the environment within which the student operates must also change. In this study, the elements inspected will be those of working with a mini-company. I regard this method as different from the ones commonly used in school, and I find it interesting to see how using this method will influence a student’s experience of the learning environment. It is very important to observe the student’s experience of their learning environment, because this will have consequences for their learning, motivation, self-image and attitude.

The key prerequisite for a person to be in control of their own life is that the individual can believe in their own abilities to complete the tasks necessary to achieve their goals which Bandura (2006) terms self-efficacy. Frank Pajares (2006) puts this concept into a learning context, claiming that expectancy of mastery creates a basis for motivation, well-being and personal completion through all areas of life. In his opinion, phenomena such as motivation, learning, self-regulation and accomplishments are unexplainable without bringing up expectation of mastery. Mastery and the expectation of mastery will, therefore, not only be a crucial element in whether a learning environment is inclusive or not, but will also, be a prerequisite for motivation and learning.

On this basis, knowledge of what shapes expectations of mastery is decisive in enabling both learning and inclusion. Bandura (2006) points out that if people do not believe that they can accomplish their aims through action, they will have little initiative to act and to struggle to persevere when they encounter difficulties. This belief is fundamental as to how students will approach schoolwork and other situations in life. Despite other elements functioning as sources of direction and motivation, they are all firmly rooted in the belief that we ourselves have the power to create changes through our actions. The belief that we can take direct action in our own lives is key to personal development, successful adaptation and change (Bandura, 2006).

In addition to affecting a student’s cognitive abilities, expectation of mastery will also play a significant role in their emotional lives. Such an expectation will also affect and be affected by how the students perceive themselves and the thoughts they have about themselves. Bandura (2006) claims that expectation of mastery is the decisive element in whether a student thinks optimistically or pessimistically, and to elements that can strengthen or weaken their self-image. This can also affect our vulnerability to stress and depression. This makes it the more important to be aware that students’ beliefs in
themselves and that their expectation of mastery plays a role for their self-image and psychological health.

Our belief in mastery is also a decisive element in our expectations towards results. It dictates whether we expect a fortunate or unfortunate result, and will thus affect our goals, ambitions, motivation and how much we can endure when encountering challenges. People with a low expectation of mastery will often view it as useless to apply an effort to something once they encounter difficulties. They give up quickly. In contrast, people with a high expectation of mastery will find ways to overcome difficulties by developing themselves and not giving up (Bandura, 2006). As we can see, creating an environment in which mastery and expectation of mastery can thrive is important if the students are to believe in themselves and their own abilities. This is not only important when engaging in schoolwork, but also for mastering other activities in life.

Bandura (1986) pinpoints that students with too high expectations can encounter difficulties due to engaging with excessively difficult tasks. However, students with a lower level of expectations than what they can achieve, find that they miss out on many tasks that they could actually manage. These experiences are important because, as Pajares (2006) points out, completing a challenging task is both rewarding and energising. The reward is even greater if the student regards the task as difficult, but still experiences mastering it by making enough effort. In this way, we see that the student’s expectation of mastery needs to be proportionate to the opportunity that the student has of achieving it. If this is the case, it will be easier for the student to select tasks and have a realistic perception of the likely outcome. As Bandura (1986) points out, this is important both for motivation and the development of personal skills.

Even though we note the importance of the student experiencing mastery to gain an increased expectation of mastery, it is not the case that expectation of mastery is affected only by experiences of mastery. Pajares (2006) points out that it is necessary to help students to understand that mistakes are inevitable, but that they can be overcome. As such, one aspect of increasing a student’s expectation of mastery is equipping them to tackle setbacks. It is, therefore, important to be observant when a student fails at something, to prevent as far as possible this experience from causing damage, but use it in such a way that the student will be enabled to overcome setbacks.

Bandura (1986) warns against students failing right at the start of a learning process. If the student experiences failure at this stage of the process, there is a greater danger that he or she will explain this in terms of uncontrollable issues such as a lack of ability (Bandura, 1986). It is, therefore, important to give the student the support they need in order to experience mastery at the beginning of the work. If the student experiences failures later in the work process, this will not be as damaging, because the student will already have gained some experiences of mastery and thus have a greater likelihood of explaining this in
terms of controllable issues such as too little effort (Skaalvik & Skaalvik, 2014). It can, therefore, be useful for teachers to be extra observant when students are at the start of a learning process, so that the students are enabled to gain some experiences of mastery. If they then have some good experiences to look back on, this will help ensure that they can learn to overcome setbacks without any damage to their self-image.

An aspect of working with mini-company is that most work is done in groups. I have, therefore, chosen to highlight theory about how group collaboration can affect a student’s expectation of mastery and belief in controlling aspects of their own life. Social cognitive theory expands the concept of controlling aspects of one’s own life to being several participants working towards a common goal (Bandura, 2000). This collaboration brings together the knowledge, skills and resources of several individuals, while also providing reciprocal support to all group participants. This leads to developing or attaining something that each individual could not have achieved alone. People’s shared faith in their joint capacity to bring about changes is the basic principle behind joint efforts. This common expectation of mastery leads them to set higher goals, reinforces their motivation to overcome hurdles, makes them more resistant to setbacks and improves their group performance (Bandura, 2006).

5.4 Findings

Risk, realism and self-regulation appear to have a motivational effect and contribute to positive experiences of mastery for some students. It appears, however, that the same factors contribute to other students not being motivated or not getting on with the work, thus not gaining experiences of mastery.

5.4.1 Effort matters

I have made several findings in this study. The most important finding is that one group of students work hard and determined in the mini-company while another group makes little effort or gives up at an early stage of the process. It appears that the hard-working students gain good experiences and an increased expectation of mastery, while those who make little effort or who give up, do not. The latter group, in my view, is more in danger of an impaired expectation of mastery. To analyse further what role this group play for the tendency described above, I have chosen to look more closely at the factors that the participants of this study highlight as important and as typical for mini-company work. I find that working with a mini-company requires a certain level of willingness to take risks. At the same time, the work appears to make connections between schoolwork and real working life, which can give students a feeling that the work they are doing is realistic. The final factor is that the students manage the project on their own, which means that a mini-company seems to enable self-regulation.
One reason that students do not get started, or finish early, may be that the start-up phase is associated with both risk and self-management. It seems that working with a mini-company is enabling for one group of students, while it is excluding for another group. Another observation that applies through these findings is that those students who succeed with mini-company work appear to be a different kind of students than those that usually succeed in academic subjects. This may mean that students who usually experience little mastery find that they do indeed master working with a mini-company. In this way, a mini-company may have an inclusive function.

All the students I spoke to, find working with the mini-company to be rewarding, motivating and to give them a sense of achievement. They report that through this work they have achieved greater faith in themselves and better self-confidence. They point out that the work was not easy, but could be challenging and at times a little scary. They describe this helps to make the feeling of mastering the work even better. In the interviews with the teachers, I also heard about another group of students that the teachers describe as less motivated and working less on the project, and some of the students even chose to give up or leave the project. My assumption is that if I had been able to speak with these students, they would have told a different story. The teachers in Finland told me that some students are motivated and remain so throughout the entire process, while others seem unmotivated right from the beginning:

‘Cause that’s been the general feeling, ‘cause when ... when we come to an end, we usually have those groups that are like mmm ... they are excited about it and they’re happy about it and they’ve been that all the time ... and there is those groups who, who have dropped out, who you can see early on, that they are not really interested in coming to this fair or something like this. And, and, and ... So basically, for one reason or another they are not coping with it. We don’t always know why ...

As this teacher points out, they do not always know why certain students do not master working with a mini-company. I would, therefore, like to look more closely at why some students appear to be motivated and report good experiences, while others seem unmotivated and may not be able to report equally good experiences. The main categories used in this analysis are willingness to take risks, realism and self-regulation.

### 5.4.2 Willingness to take risks

The impression I gained from the interviews is that working with a mini-company requires a certain willingness to take risks. This is unique from what we might term traditional classroom teaching. The mini-company method requires that the students take risks and invest in their idea. The teachers report that in the context of mini-companies they regard themselves as advisers to a greater degree than in traditional classroom teaching. As I see it, this can lead to the students feeling that they need to take important decisions.
themselves, which then can enhance the feeling of risk taking. It appears that the start-up phase is perceived as particularly risky, which means that the method requires the students to be risk willing right from the beginning. A student in Latvia reported that it was very stressful to bet on the idea that they decided on:

... it was really stressful for us ’cause it was a actually a very ambitious idea, because we didn’t know how to do it, how to make it or how much would be the material cost, or how much would be the self-costs, for how much we could sell it, what’s the market we are targeting.

Much of the stress experienced by this student relates to the student not knowing how to carry out the task. Most of the students have probably never encountered anything of this sort and their uncertainty give them a feeling that they are embarking on something scary. In addition, the students are investing their own money in the project. This too enhances the pressure to succeed, as well as the sense of how great the risk is. Another student in Latvia reported that the task felt to be unachievable.

... at first it seemed, it would, it would be impossible to do something like that, because how to sell it, how to, I don’t know, record it and stuff like that.

These students report on a process surrounded by insecurity. They describe not knowing how to solve a task of this sort and that it felt to be unachievable. What, then, makes the students dare to accept the risk and get on with the work? This can be interpreted by the theory of expectation of mastery. As Skaalvik & Skaalvik (2014) point out, a student with a high expectation of mastery will have previous experience of mastering tasks and will, therefore, have a more positive outlook on whether he or she will be able to tackle this task, even if it does seem to be impossible. Students with good experiences of mastery will also have a sense that their input play a role in the result. As Skaalvik & Skaalvik (2014) claim, they will have faith in their ability to solve the problem if they put in enough effort. As well as providing the motivation to get on with the task, this will also contribute to a positive attribution, if the student were to fail.

Another aspect of mini-companies is that the students as a rule work in groups. As Bandura (2006) points out, expectations to a group of which an individual is a part can be higher than the individual’s expectations of success alone. This can mean that some students have faith in achieving results, because they are working in a group in which they believe, even though they do not believe that they could have accomplished this on their own. On the other hand, if a student is in a group, that the student anticipates will achieve less than he or she could have done alone, this will presumably lead to the student having little faith in the group’s chances of success with the task.
A student in Latvia reports that when he embarks on a task that seems risky, and then finds that he masters the task, this experience makes him proud of himself and gives him self-confidence. He also says that he will use this new self-confidence in similar situations where a task seems risky at first. This is in line with the principle that experiences of mastery provide increased expectations of mastery that in turn will affect the initiative to embark on new and risky tasks.

Yes, the confidence is what you get out of that, because if you think of something risky and eventually it works out, it’s like you are proud for yourself and eh ... it motivates you and it gives you more confidence to do new things and to take risks which you think are more difficult than they really are.

Another student in Finland describes the work as hard, but also points out the value of it:

… it’s kind of difficult, because it takes a lot to make the bars, and we do it ourselves, so it’s hard, but it’s worth it.

The fact that working with a mini-company seems unachievable, difficult or stressful seems to be a motivational factor for these students. They appear to be referring to a reward that makes the hard work worth the effort. The fact that at the students manage to envisage this reward suggests, in my view, that they have an expectation of mastering the task. As Pajares (2006) points out, completing a difficult task can be a reward in itself and thus become a source of energy. My assumption is that students who have experienced this previously know what it feels like and are thus able to see the value of the result, even when the work is difficult.

My impression is that students perceive the start-up of the mini-company as risky. For some students this is motivational, as we can see from the above quotations. According to the teachers in Finland, however, some students do not appear to be particularly motivated for the task. I was told that some students give up and chose another course instead. As I see it, the sense of risk may hinder a student from embarking on the mini company work. A teacher in Finland reports that if the students cannot handle the pressure and the uncertainty generated by this type of work, they are not meant to do it.

‘Cause, ‘cause maybe, maybe we see it on another stage than, that if you can’t cope with the pressure, if you can’t cope with the uncertainty, if you can’t cope with the work, well maybe you are not cut out for it.

He tells how students who are unable to handle these aspects often give up early in the course. Can we just accept that some students simply are not intended for this type of work? Based on Bandura’s (2006) theory of expectation of mastery, a student with few or poor experiences of mastery will not have the same faith in himself when encountering a
challenging task later. We can, therefore, assume that students with little experience of mastering schoolwork or similar tasks will have little expectation of mastering work with a mini-company either. Bandura (1986) also claims that calculations of risks depend on the students’ belief that they can master potentially threatening aspects of a situation. The perception of risk in starting a mini-company will thus vary from student to student. Students who have too little faith in their own competence will probably have a greater expectation that the situation can get out of their control. It appears that the uncertainty and volume of work may be the reason that the students expect to be unable to tackle the work, and this can lead to the risk being considered too great to justify starting the work.

It seems to me that avoiding making a start on the mini-company work is a way of protecting the student’s self-respect, since the student has an expectation of failure. If the student starts the work and then experiences failure, this can damage his or her self-worth. Choosing not to expose oneself to this risk thus becomes a mechanism for self-protection. Skaalvik & Skaalvik (2014) describe this strategy as a self-imposed handicap. The student can choose to give up or to make a minimum of effort in order that he or she can assign the expected failures to these causes.

The reason that these students have little expectation of success and regard the risk as too great, may be that they have previously experienced failure even after putting in a lot of effort. If this has gone so far that the student no longer sees any connection between his or her own actions and the outcome of the situation, then what Skaalvik & Skaalvik (2014) define as learned helplessness will become applicable. Students with learned helplessness will display a passive behaviour. If this is the case, it is very likely that the student will not start to work in a mini-company.

On this basis, it appears that students who have little experience of mastering similar tasks have less willingness to take risks, because they expect to fail and therefore reckon the risk to be too great. When a student expects to fail, the student will have little motivation to start the task and may well display a behaviour consistent with an attempt to avoid the task. The reason may be to avoid exposing an already damaged self-image to any further risk. The risk that is associated with the start-up phase in a mini-company can thus motivate one group of students while creating a barrier for another. This can cause some students not to start work or perform it with an expectation of failure.

5.4.3 Realism

The students I spoke to say that they see a connection between working with the mini-company and what await them at the real workplace. I believe that this is also a feature that distinguishes working with a mini-company from traditional classroom teaching. The students I interviewed speak of excursions to real companies and of having mentors at real workplaces. This helps the students to perceive the work they are doing as something
important and valuable, since they can see the meaning of it. A student in Latvia comments:

… yeah, the feeling that you, you have to do the real work. That gives the, erm ... I don’t know, a preview of how it will work in a real company or something like that.

She says that working with a mini-company is a kind of taste of how things will be in real companies. It sounds like she sees the value of what she is learning through working with a mini-company. This may be because she finds that it provides knowledge and skills that she may find useful later in life. If so, it is reasonable to believe that this is a motivational force, because it is perceived as useful. Another student in Finland reported that she was proud of the product they produced and that the company not just “pretends”:

I think it’s good that we have some products that we are proud of, because the people that we sell it to or trying to impress, yeah it’s kind of nice that the product is good. We are not kidding or joking or anything.

This student emphasises that the product is not just nonsense. She says it is important that the product is good, because they need to sell it for real. To me, this seems to be an indicator that she is motivated and finds the work meaningful, because it is perceived as genuine and important.

Bandura (2006) emphasises that to be motivated young people need to commit to a meaningful goal. Based on the comments by these students I believe it seems that working with a mini-company gives meaningful goals to the students, and that it is, therefore, motivational. As mentioned earlier, I was also told of a group that did not seem especially motivated. The teachers in Finland said that:

… most of those that quit, they quit early when they find out how much work this is really. So they have like chosen the course, because “we don’t do anything there, and there are no books”, and then after few weeks they realize what is going to happen and then there was no one showing up.

Another teacher confirmed this by telling that they have some students who search for the easiest way of completing their schooling:

They think like “maybe this is the easy way” and after two weeks maybe they see “no, this is not going to be the easy way” and then they quit.

As Bandura (2005) suggests, students need to commit to something that they perceive as meaningful and worth mastering; otherwise, they will be unmotivated, bored and cynical.
The students described here seem to me to be unmotivated and bored. If we follow this line of thought, there needs to be a turn-around, if these students are to go from being unmotivated to being motivated. Working with a mini-company is unlike ordinary school work. As such, it can motivate many students and contribute to just such a turn-around. However, the fact that this method requires much work and is risky especially during the start-up phase can lead many students to give up before they get the chance to experience the mini-company work as meaningful.

There may of course be individual students who do not find the mini-company working method to be meaningful, even when they do give it a chance. The work is done differently from one school to another, but it will always entail a focus on entrepreneurship and on running a business. If a student is not interested in this and cannot envisage a future in which he or she may need such skills, it can be difficult to regard the work as meaningful. This will make it difficult to stay motivated for the work and one solution may be to give up or to put in a minimum of efforts.

5.4.4 Self-regulation

A feature of working with a mini-company is that it demands a great deal of independent work on the part of the students. The work requires the students to manage large parts of their learning activity themselves. Both students and teachers tell that this method of working functions in such a way that the teacher adopts a mentoring role and that students need to ask for help and advice when they need it. The teacher who was functioning as interpreter in Latvia summarised this in a comment made by one of the other teachers:

… so she believes she is a coach.

The teachers in Latvia report that their role is somewhat different from ordinary classroom teaching. They regard themselves as advisors and counsellors who give the students help when they request it. A teacher in Finland reports that she does not do things on behalf of the students, but, instead, asks the right questions to enable them to arrive at a solution themselves:

… I think I see my role that I’m not doing anything for them, but I can help them to ask the right questions.

The other teacher in Finland says that this is different from other courses they teach:

… yeah ... and, and, and this is basically the fundament or difference between an ordinary academic course and this one.
My impression after speaking to several students is that managing themselves feels good and is motivating. A student in Finland says the following:

… for the first time we had something of our own, and like we were the ones who could make the decisions and all that. We had the power.

The degree of self-management given to this student, gives a feeling of power that she likes. The way she describes the feeling of having this power seems to be self-confident. This suggests that the degree of self-management provided this student both with motivation and increased self-confidence. She says that this is the first time she has had this feeling, which is in accord with what was said by a teacher in a previous quotation, that this is different from ordinary teaching carried out in the school.

This suggests to me that working with a mini-company can potentially enable the development of self-regulated learning. The students must manage much of the process themselves, while the teachers function more as advisors. This appears to differ from other forms of teaching in which the teacher’s role is more that of leader of the learning process. Bandura (2006) points out that the opportunity for self-management is important if the student is to learn good self-regulation and thus be equipped to tackle a society in constant change. Zimmerman, Bandura and Martinez-Pons (1992) claim that if the student develops a strong belief in his ability to direct his own learning, this may lead to higher ambitions and performance. This shows that it is important to enable the student to develop self-regulation skills, both to become good in self-regulation and to have an effect on ambitions and performance. Skaalvik & Skaalvik (2014) point out, however, that it is important to be aware that self-regulated learning needs to be learnt gradually, and that the degree of self-regulated learning needs to be proportionate to the maturity of the student.

If the students have done little prior work involving self-regulation, this challenge can easily become too great. The literature emphasises that students need to have adequate experience of self-regulation and that such experiences should be positive ones, if they are to believe in themselves as potentially good self-regulators (Zimmerman et al., 1992). If the student does not have any experience of mastering self-regulated learning, he or she will probably not have an expectation of mastering it on this occasion either. It is also possible that the students have a minimal level of experience of self-regulation and that managing the learning process to a large degree independently may be perceived as risky and difficult. The latter seems likely based on what this teacher from Finland says:

… some students … it’s a great thing to have that much trust put in you, now you’re managing yourself and now you’re doing this all by yourself. We are just here to help if you need. Of course, some students eehh … go the other way, those kind of get frozen. “I can’t do anything, I’m not given instructions”.

For this reason, more support may be necessary for individual students simply because it is difficult for them to direct such a large part of their learning on their own. The students will almost certainly be at different levels of maturity and thus have different prerequisites for self-regulated learning. This is confirmed by a teacher from Finland:

… they are at different levels all the time.

On this basis, it may appear that students who are well equipped to deal with self-regulated learning, will draw benefits from working with a mini-company. Students who are less well equipped for self-regulated learning are in danger of finding out that they do not master this kind of work.

5.4.5 Conclusion

The main conclusion is that working with mini-companies can enable an increased sense of mastery, but it can also hinder it. I will identify three elements that this study suggests may promote a group of students’ expectation of mastery, but which may also act as barriers for other groups. These elements are as follows: the risk associated with starting a mini-company, the requirements towards self-regulated and self-controlled learning and if the experience feels realistic and meaningful. For the work with mini-companies to be successful in creating an inclusive learning environment, it is necessary to adapt teaching in such a way that all students can participate and receive a sense of achievement. This also makes it necessary to apply certain adjustments so that the students receive tasks suited to their situation.

Mini-companies have the potential to create environments in which all the students can participate and gain a sense of accomplishment, and thus creating an inclusive learning experience. From what I have seen, the initial starting period seems most risky and thus may be critical when it comes to all students having an expectation of successfully mastering the work of the mini-company. It is necessary to introduce the experience so that no students regard the risk as too great and thus fail to start the work. In my opinion, individual goals can be set for each student so that the associated risk never becomes unmanageable.

Firstly, during the start-up phase of the mini-company, it is important for the teachers to be aware of which students need additional support and the nature of their needs. This is important because the student should be able to receive a sense of success during the initial part of the process. As Bandura (1986) warns, failing during the start of a learning process can be very dangerous, because it becomes likely that the student attributes this failure to uncontrollable causes. However, if the student experiences episodes of success early in the
process, it will give him or her a perception that any future failures are caused by elements within their control, thus limiting the chance of injuring their self-esteem.

Secondly, it appears that the effort put in by the students is affected by how meaningful they perceive working with a mini-company can be. In my opinion, the motivation shown by the students will be affected by how the project is presented and how it is adjusted to the individual’s needs. The work performed during a mini-company should be presented so that it enhances skills that are important for the student’s future life. With this method of working, it becomes possible for the student to implement their personal interests and skills into their schoolwork. This can be done by developing a business idea that coincides with the student’s interests. In my opinion, it should be possible to present the work in a way that all the students perceive as meaningful and motivating. Following this train of thought, the teacher’s job would be to make sure that the mini-company work is presented as such, allowing the student to see all the possibilities.

The third element that seems to affect the amount of effort applied by the students, as well as the benefits gained from working in a mini-company, is the amount of self-management required for this type of work. Both the students and the teachers point out that this work requires the students to regulate their learning process on their own, while the teachers function more as advisors. As Skaalvik and Skaalvik (2014) point out, self-regulated learning contains many elements that need to be learned, and this learning must be related to the student’s maturity and level of development. In my opinion, it is necessary to survey all the qualities the students may have that will enable self-regulated learning and then adjust the demands of the mini-company to these qualities. The teacher should be actively noting and adapting these, so that all the students have activities they can expect to master.

In this study, I found a group of students who have had a positive experience with a mini-company. They tell of increased self-esteem, a greater willingness to take risks, a sense of pride over having achieved something on their own and a certainty that the knowledge they have acquired will be beneficial later in life. These are attitudes and skills that are in line with the school’s agenda within the larger community. Thus, I believe that more time and resources should be applied to researching how this work can be adjusted, so that all the students can receive the same positive experience.
6 Reflections of Teachers’ (Estonia and Italy)

Ingunn Elder wrote this chapter. She studied teachers’ experiences of leading creative and innovative processes in close relation to students in mini-companies. The research question addressed was: How do teachers experience working with mini-companies? More specifically, she discusses what teachers regard as positive in their work with mini-companies and what challenges they encounter in their interaction with mini-company students. The master’s thesis project was carried out in Estonia and Italy. Her supervisors were Astrid Margrethe Sølvberg (supervisor) and Vegard Johansen (co-supervisor).

6.1 Selection of participants

In this study, the data are selected from teachers who work with mini-companies in vocational courses in Italy and Estonia. In Estonia I visited a medium-sized vocational school. The second and third-year students (from age 16 and above) have EE based on JA Europe’s teaching model for mini-companies. Selected groups run their own mini-companies throughout an entire school year. During the 2016/17 school year, some 90 students were participating in mini-company work at the school. In Italy, I visited a large economy based vocational school. The students at the school were mostly between 14-19 years old. All the 4th-year students (17-18 years old) participate in mini-companies at their school.

The focus groups that I interviewed in both countries consisted of teachers working at the same secondary school. All the teachers were experienced in vocational studies and with mini-companies. In Estonia, I carried out a focus group interview with seven teachers, all of whom had worked with mini-companies that year or the previous academic year at the vocational school. In Italy, I carried out a focus group interview with five teachers. The five teachers who participated in my focus group interview each had responsibility for one class and one mini-company for the current year.

6.2 Research focus

I hope that this study can shed some light on aspects that teachers regard as stimulating and challenging in working with mini-companies. The issue addressed by this study is: How do teachers experience their work with mini-companies? The goal has been to look for patterns in how teachers describe success with mini-company work and what aspects of
their encounter with the students they regard as challenging. This study have findings that suggest solutions for how the school and the teachers can meet and handle the challenges that they describe encountering.

### 6.3 The ability to detect blind spots and to lead through Theory U

Establishing a mini-company is a creative and innovative process that takes place throughout one school year (Johansen, 2018). The students’ work demands that the teachers are open to new ways of thinking, often on subjects with which they are not very familiar, or where there are no established methods or recipes. The teachers are challenged to be supportive and curious about the project that is developing along the way. Darsø (2010) claims that an ability to think differently and outside assumed expectations requires training, since we are used to suggesting solutions related to the instructions we receive. According to Scharmer (2011), a person can change his thinking patterns, and, therefore, his thinking systems, if he is conscious of his own attentiveness. To be able to change personal practices, Scharmer (2011) states that it is necessary to develop self-awareness and expand our own blind spots. A blind spot is a place within or around an individual where consciousness and intentions are created. The blind zone is the area that we are unaware of in our own inner social field, in our experiences and social interactions with people. It is not what a leader does that makes a difference in how challenges are met and dealt with; it is the inner place from where actions originate.

Scharmer (2011) claims that there are two sources of learning; learning from past experiences and learning that is drawn from the future as it develops. The first one is the most common type and forms the basis of most learning methods. Learning from the emerging future is a more unfamiliar learning method. If we are to learn to cope with the challenges that a complicated future provides, we cannot act exclusively based on our experiences.

Working with mini-companies demands that teachers are to be both a driving force and passive; a dilemma, according to Ask (2014), with which teachers must learn to cope. In a process such as developing a mini-company, many teachers may fear a loss of control over their teaching, if they cannot foresee the outcome. According to Ask (2014), the experience of not having an overview may explain why some teachers are hesitant to introduce more EE in schools. Working with mini-companies is about showing one another trust; the teachers must learn to relinquish responsibility in order for their students to learn to take responsibility. The key to leading through what Scharmer (2011) calls Theory U is about changing the inner space from which actions originate, both individually and collectively. The leader must be able to see things from the perspectives of others and have trust in all the students as participants in the work. Scharmer (2011) refers to leadership as formal leaders, but also as individuals encounter challenges by how one creates change and contributes to shaping the future.
Theory U has four levels: action, thought, feeling and will. Scharmer (2011) emphasises the individual’s personal skills of letting go of the old and accepting what is new. Opportunities exist in opening up for and acting on what the future offers, as opposed to acting from previous experiences. In this way, change within a social field can occur and it is possible to discover one’s own creative inner force. It is necessary to identify the source from which one acts to lead oneself or others through a creative and innovative process. Scharmer illustrates this in terms of the ability to see the process as a blank canvas to be filled rather than focusing on the finished painting/result or on the process alone. By opening up, being inquisitive, listening to others, examining, supporting, being curious and by being patient and allowing people to find out things on their own, we can contribute to the development of others and ourselves.

According to Scharmer (2011), it is necessary for a leader (in this case a teacher) to be able to discover himself. Darsø (2010) suggests that a group does not need to go through all the levels in the U-model, but the leader should be attentive to the group with which he is working and be able to make assessments from group to group. Theory U can be useful for seeing where one is, as well as being an aid for leading others. According to Scharmer (2011), once a group has accomplished change in its social environment and acts based on future possibilities rather than former experiences, that group is brought closer together and the individual can experience significant occupational and personal benefits.

The highest level in the U-model is what Scharmer (2011) calls downloading. He explains this process in terms of how an individual usually perceives himself and the world around him. Often an individual confirms his own opinions and does what he has always done without considering what he is doing or why. At the highest level of theory U, individuals are not particularly open to new perspectives nor to discussions or reflections.

At the level below, previously experienced knowledge is repealed and we open up for seeing with new eyes through new additional knowledge. This ability to see with new eyes can be occluded by one’s inner voice of judgement (VOJ).

At the third level, the individual reflects over his own blind zones and previous concept of abilities, allowing a view of former knowledge in association with new knowledge to emerge. Personal understandings are transformed in their encounter with the inner voice of cynicism (VOC) which can try to trick the individual into a distancing that prevents further examination of personal blind zones.

The bottom level of the U model describes creative presence, where new possibilities appear in a larger holistic context than at earlier levels. The voice of fear (VOF) can create resistance in an individual, making them unable to let go of the familiar and to enter the new and unfamiliar. Leading someone through different levels will demand that an
individual is conscious of his or her own personal inner resistance and fear and that they manage to convince those they are to lead that they are open in mind, heart and will.

According to Scharmer (2011), as many as 90% of teaching resources are allocated to downloading and reproducing old knowledge without self-reflection. The remaining 10% are mostly used on practicing and training based on the 90% portion. Scharmer (2011) challenges schools to alter their practices towards teaching methods that are in touch with the world at large, so that children to a greater degree can discover their own authentic sources of creativity and awareness.

Scharmer (2011) states that in order to guide children into the future, teachers must move through four different fields of attention: 1) At the downloading level, the field of attention is created from what one is accustomed to, and one listens as I-in-me. 2) At level two, the mind is open and one listens as I-in-it. 3) At the third level, the heart is connected, and one listens with engagement as I-in-you. 4) At the fourth level, a field of attention is created in which one understands from one’s innermost place and listens as I-in-now. Listening with an open heart will enable the replacement of private agendas with a worldview as it appears in the perspectives of others (Scharmer 2011). Leading an innovative and creative process like a mini-company requires the teacher to get in touch with his own sense of wonder and to integrate his head, heart and hands in the development process together with the students.

Building a real and deep relationship with other people enables the sharing of social fields by means of what Scharmer calls “presencing”. Presencing does not only connect us to others; it also connects us to ourselves (Scharmer 2011). The lowest level of the U model is the level at which one lets go and creates the connection required to receive the future. Scharmer uses the term “I-in-now about creating a sense of belonging with a future that needs us and can only be brought about by us” (Scharmer 2011).

I suggest that teachers might be able to change their teaching from 90% instruction and reproduction (Scharmer 2011) towards supporting the students to enable them to solve dilemmas through active exploration, personal reflection and discovering new knowledge themselves. Ask (2014) also describes how this can occur through EE in which mini-company is the most common method. She claims that through EE students are moved from passive to active action and that they develop the entrepreneurial skills that individuals need in their lives.

### 6.4 Findings

Based on the research question of how teachers experience their work with mini-companies and an analysis of the data material, I have designed the following categories: Personal growth; interaction relationships; and organisation.
The category of **personal growth** describes how teachers believe that working with mini-companies contributes to personal growth for themselves and for their students. This category describes two aspects of personal growth. One aspect is concerned with how teachers experience their work with mini-company as contributing to their own personal growth. Several teachers state that they find working closely with their students to be motivating and that they learn a lot from their students through this way of teaching. Another aspect concerns the way teachers describe how their work with mini-companies is significant to the students’ personal growth.

The category of **interactional relationships** describes the relationships between teacher and student in mini-companies. This category describes two factors regarding interactional relationships in mini-company. One factor describes how the teacher strengthens students’ skills by awakening their interests. The teachers describe how they build relationships with the students and how they guide the groups in the collaborative development of their mini-companies. Another factor concerns how the teacher’s role changes when working with a mini-company, and how the teacher can take a mentoring role in interaction with the students in the mini-company.

The **organisation** category describes what teachers identify as challenging in relation to the organisation of teaching, as well as in relation to cooperation with other mini-company teachers. The category describes two factors regarding organisation and cooperation. One factor is concerned with statements relating to challenges described by teachers in relation to how mini-company is organised for the students. Another factor concerns how teachers reflect around the need for cooperation and sharing knowledge between teachers.

### 6.4.1 Teachers’ personal growth

The teachers found that working with mini-companies contributed to their own personal growth, irrespective of whether their experience was short or long. Several spoke of a feeling of mastery and motivation when they worked closely with their students through the innovative processes of mini-companies. My interpretation is that the significance of motivation for working with mini-companies is an important finding in the data material. What is particularly interesting is that the motivation varied at the start of the work. Initially, some teachers describe feeling an inner motivation and engagement for this type of teaching, while others explain that they were requested to work with mini-company. Many of them describe how working with mini-companies during the year affected their motivation for mini-company, as Ryan and Deci (2000) show in their self-determination theory. Two teachers describe their starting point for teaching mini-companies in this way:

*For me personally, it was a choice I made (to teach mini-company). Because I think this is a real way to learn about what life is like outside of school.*
I was not personally interested. I was selected as group leader and to support the students. I did not know anything about mini-companies, and I felt like I was going into this with a bag over my head.

I did not know anything when I started, and now I feel like it is absolutely amazing, it is so exciting, I really want to do this.

The first teacher describes how he was interested in teaching entrepreneurship and mini-companies and how the mini-company method seems to be a genuine way to learn about the real life outside school. During the interview, I noticed that this teacher was concerned with teaching in a way that stimulated a great deal of student activity, which Frøyland (2016) highlights as a qualitatively good way to teach. Another teacher describes how she initially felt an external motivation imposed on her by others without her being interested or engaged in working with mini-company. This teacher describes being externally controlled and assigned to lead groups of students in mini-companies. She related that when she began she felt as if she did not know anything about the subject that she was supposed to teach. In the last of the above statements, the same teacher describes how her motivation for working with mini-companies changed from being externally to being internally controlled. This type of change is described by Ryan and Deci (2000) as a valuable motivation process that through self-reflection she changed her attitude and her own understanding of her teaching work.

A third teacher told me after the interview that she most of all enjoyed teaching the adult students, because she felt that they were the most motivated and interested in her classes. She also taught younger students, who she tended to describe as more difficult to teach, because they were unmotivated. I interpret her motivation as related to her preference for teaching individuals who are already internally motivated rather than changing her perspective to see the opportunity to influence motivation among the unmotivated. I conclude that by means of relational-ethical reflection (Løgstrup 2010), this teacher could have chosen to regard the younger students as an exciting group to teach offering her an opportunity to change the students’ inner motivation (Ryan and Deci 2000). Lindseth (2014) emphasises the importance of a helper, in this case the teacher, being aware of what others are expressing, especially when the concepts are difficult to understand. A teacher’s most important task is to help all the students to learn. According to Ryan and Deci (2000), a teacher’s ability to enable students to experience teaching autonomously affects a student’s capacity to alter his own motivation and attitude toward the teacher.

In one of the focus groups, some of the teachers had experiences as entrepreneurs outside of their teaching jobs. All, but one teacher had made a personal choice to teach mini-company. In the other focus group, most of the teachers told me that they had been assigned to teach the subject and that group had a minority of teachers with previous experience as entrepreneurs themselves. Below two teachers explain how their work with
mini-companies changed them, irrespective of whether they were internally or externally motivated at the beginning of their work with mini-companies or whether they had previous entrepreneurship experience:

_I feel like I get in touch with my students in a very special way when we work on the mini-company, and that gives me so much on a personal level that I will gladly spend my free time on it as well [...] we have fun together._

_It’s easier for me, because I’m not the head of the business or the advisor for the business. I’m just a mentor and supporter of the businesses. And I especially help the students I know well from before. Perhaps the fact that I don’t hold all the responsibility alone makes me feel that this is great fun for me on a personal level._

The first statement came from an experienced mini-company teacher, while the second statement came from one of the teachers who was assigned to work with mini-companies the previous year. To me, both statements are about the importance of feelings of belonging and of competence having an impact on the teacher’s motivation to teach a mini-company, and how the teacher experiences mini-company autonomously. Assignments are customised so that teachers experience mastery (Bandura 1989, Johnson et al. 2000) and joy in a close relationship with the student group. Both Ryan and Deci (2000) and Scharmer (2011) identify the ability to create joy in a work situation as an important source of motivation for the administration of creative and innovative processes.

In their work with mini-companies, teachers explain how they are challenged to go through innovative processes together with their students and they describe how the teacher can support each student through various phases, as Scharmer describes it in Theory U (2011). Teachers in both countries explain that they find it meaningful to be able to learn from and with their students through the processes of a mini-company. Mini-companies originate from student ideas and interests, which means that students often have more knowledge about the theme of an idea than the teacher does. Below, I present statements regarding how teachers describe the experience of being the one who learns from their students:

_Because I can learn something new, and the students love to teach something to their teacher. I think it is something students like: to teach the teacher.”...“Ah, it is the best part of being a professional teacher!”_

_“Sometimes I know more about what they are going to teach me, but I try to pretend that I don’t know that much. The students learn better by teaching both me and others. And often, I feel like I really do learn something, because the students know more about their interests than I did to begin with._
My role becomes different than that of an ordinary teacher, because I’m more equal, I’m one of them. I’ve never communicated as much with my students as I do in the mini-company.

In the first statement, the teacher describes her experience of the students’ enjoyment of teaching and how she herself enjoys learning from them. I interpret her statement about the best part of being a teacher conveys something of her inner motivation to interact with her students in a reversed role (Ryan and Deci 2000). Several teachers in both countries say that they experience their role as a teacher is different when they are working with a mini-company. They find it valuable to learn from their students, and they feel like equals working in a team with their students. I draw a connection between these statements to the teachers’ ability to open their minds, hearts and will to lead others, as Scharmer (2011) describes in Theory U.

Another teacher describes how he was challenged to work with an idea for which neither he nor the students did have a theoretical background. The group discussed which possibilities were inherent in one student’s idea and the teacher describes how he and his students as a team explored and learned together:

It’s been very interesting, because ordinarily I’m used to working with concrete and bricks. But working with make-up is a little strange and totally new to me. Not just to me, but to the students too. They are also used to working with concrete and bricks. I thought it was a very interesting idea, and it came up, because we have beehives right outside the classroom. One of the girls wondered how we could use the beeswax. Together, we started searching online, looking for ways to make make-up with beeswax and olive oil. Eventually, we got in touch with two factories close to here that produce make-up with natural ingredients. We understood how hard it was to produce, but managed nonetheless to cooperate with these companies. Both companies thought it was an important way for the students to have an experience of real working life, and they really wanted us to achieve our goal.

This teacher describes the possibilities that exist in being open minded, and how he as a teacher enjoys developing something totally new together with the students under his tuition. The same teacher described in another statement that he found it difficult to get everyone interested, but that he wanted to be a friendly leader for his students; a leader who could help all the students reach their goal as a group. The process the teacher describes in the above statement is, in my view, a good example of a U process (Scharmer 2011). The group was in the middle of that year’s mini-company process when the interview was conducted, and the teacher describe how they are on the way though the U’s various levels, and how he as a teacher helps his students by being open to their new discoveries and by learning together with them.

One teacher said that seeing a student’s strengths gave him a chance to succeed and show what he knew (Løgstrup 2010). She went on to discuss how that experience became
important for the teacher’s feeling of mastery and enjoyment in her work with mini-company. Below, she explains how her own experiences with mini-companies have stimulated a change in her teaching style as a mathematics teacher.

It’s interesting, because the most usual method in mathematics is that the students have to find the answers, but now I’m not as interested in knowing the answers as in knowing how the students have reached them. In their own way.

Through reflection-on and in-action, I take this to mean that this teacher has changed the way she reflects-on-action in the subject she has taught for 20 years (Schön 2000). She challenged a student to take a role in which she knew he could experience mastery. This teacher was herself assigned to work with mini-companies, where she experienced a major personal development that changed her role as a teacher. Overall, the teachers describe how they experience personal development in their work with mini-companies, and I found that all 12 teachers expressed pleasure with teaching mini-companies. Mini-company is a method in which teachers are given the opportunity to form close connections with their students and in which they can contribute to the development of the individual students’ strengths (Waaktaar and Christie 2000).

6.4.2 Students’ personal growth

Several teachers describe how their work with the mini-company contributes to personal growth on the part of their students. The teachers express the view that working with a mini-company provides unique possibilities to awaken the students’ interest based on their strengths and interests in working with mini-companies, and that this contributes to personal growth for the students. Two of the teachers express it in this way:

I am completely certain that everyone has something special about them, their strength, independent of whether they are a teacher or a student. These strengths can be expressed (through a mini-company), not all students are good at mathematics, but his eyes lit up when he received recognition for all his work (in mini-company). What can make them feel better? It is this which is very important, that I as a teacher see and support them.

I feel that mini-company gives students the possibility to be themselves and choose to work with something they enjoy. So, if a student enjoys drawing, they can choose to work on the design of the project, or if a student is more of a leader, they can choose to be the leader.

These two statements describe the positive opportunities that the individual student is provided with through working with a mini-company. To me, their statements suggest the importance of basing teaching on the strengths of the students (Waaktaar and Christie 2000) and that this is related to the individual students’ experience of authenticity and skills used in the mini-company. This is what Deci and Ryan (2000) highlight as important
for the motivation to learn. In these statements, the teachers are describing their own key roles in seeing their students in a way that allows them to experience mastery. This is what Løgstrup (2010) and Lindseth (2014) describe as a helper’s positive influence on a meeting. The teachers also seem to be describing a form of jigsaw method of collaborative learning, as described by Johnson et.al. (2002) as a pedagogical method that the teacher has an opportunity to organise in such a way that the students can experience themselves as skilled and significant in their interaction with others (Ryan & Deci, 2000).

One of the teachers described how he works with individual students, taking them out of their comfort zones so that they can rise to challenges and dare to do more. He also described how he was made aware of the students who had ended up as outsiders and how, through building relationships with them, he helped to expand their leeway for action:

I realised that usually, only a portion of the class is really involved and the others are somewhat put on the sideline. So eventually, I became more concerned with getting those who dropped off, get back on, how to get them involved, too.

...that I have sometimes to force and push a little, within limits, so that they can overcome their difficulties. I have really to know the students and be able to assess whether they are receptive for that kind of pressure or not. For some students it may have the opposite effect, if the teacher insists too much.

This teacher describes how he has reflected-on-action (Schön 2000) in relation to how he engages each student by means of the way he perceives the individual. In my interpretation of his statement, his way of thinking is the key to helping each student, become involved in the mini-company which, as Lindseth (2014) explains, is important to assist the students. According to Lindseth (2014), the student’s comments should make an impression on the teacher when they are important for the student, which requires that the teacher is open and attentive to the student’s comments in the here and now.

Several teachers described the task of getting all the students to participate equally in mini-company work as challenging. When I asked the teachers to describe their experiences with changing students’ participation and attitudes towards working with mini-company, they described their experiences in various ways, as shown in the statements below:

He started out doing little, but during the spring, when the mini-company ended, he was the best one at his speciality. He was brave enough to give advice to others, he expressed his opinions, and he began to communicate.

These boys, who started out as very shy, got so much self-confidence through the project (resource for a business affiliated with another study).
She is very shy, but when we were going to select a representative for the class, the others wanted her to have the opportunity, because she had worked so hard on this project. But she is a little shy and afraid. There will be an opportunity for her to overcome her shyness.

In these statements the teachers discuss how experiences with a mini-company can contribute to feelings of mastery for the students. They describe how they have challenged their students to dare to accept invitations when the teacher and/or their classmates have trusted that a student can master a situation. The teacher who described the changes taking place in the students in the earlier statements, explained how her own change of attitude towards mini-companies was closely related to her contribution towards increasing the self-confidence of those same students (Waaktaar and Christie 2000). Her statement tells how she noticed that a very shy and cautious student matured through the experience of mastery and felt a sense of belonging and competence (Ryan and Deci 2000). I interpret the third statement as a description of how the support by the other students can help an individual overcome her shyness and dare to move on which Johnsen et al. (2000) emphasise as being important in cooperative learning.

6.4.3 The teachers strengthen students

Several teachers in both countries talked about the challenges they experienced when working with mini-companies. All of them were familiar with the challenges of passive students, or those who let others do the work for the whole group. In the statements below, the teachers speak about these challenges, but also about possible solutions that they feel are important pedagogical measures for teachers to take:

"They aren’t so well integrated, and many of them don’t do much. And many of them that do something become angry and irritated at those that don’t."

"This is the difficult part of organising and administering. Getting everyone on the same level of engagement. It’s easier in small groups, and the teachers must know how to teach in that manner."

Here teachers describe experiencing their difficulties in getting everyone interested. At the beginning of the interviews, I felt that they were describing students who preferred to step back and let others do the work for them. After a while, the groups brought up incidences when they had experienced how individuals became involved through establishing relationships and felt a sense of belonging, recognition and authenticity. To me these statements describe how the teacher is the one who can ensure that the students participate, by developing a closer relationship with each of them in the early phases of the mini-company process. When the teacher occupies a position where students feel recognised, it can contribute to major changes for individual students who previously may
have challenged the teacher. Through various forms of dialogue at an early stage in the process, teachers explain how they can follow up each individual student:

When I delegate assignments and mentor them, I see what the student has done, then I try to look for what they like and speak to the student, and ask them if they like this or that, or if they would rather have another assignment.”

If the assignments are split into smaller assignments and delegated to individuals, it makes the students feel that their work is more important. I had two students who did not participate very much, so I tried to involve them by giving them the assignment of creating the business’s logo. They did a good job and began to contribute.

One of the boys called me and asked if I was doing it right, saying he thought it could be done differently. That was because I did not know anything about making websites. In terms of communication, it was super.

Because they became personally involved, and because it was only those two, they couldn’t hide behind the others’ work. They felt that if they did not do the job, it would fail. Before they were very much outsiders, isolated from the rest of the group.

In these statements, teachers describe how, through close monitoring and dialogue, they organise the mini-company in smaller groups and customise autonomous tasks so that the students can experience mastery, which Ryan and Deci (2000) emphasise as important for a feeling of inner motivation. By delegating the assignments in a more personal way, the teachers describe how their students experience participation as more engaging. I take this as a positive example of the jigsaw method in cooperative learning (Johnsen et al. 2000). The teacher who told that one of her students contacted her outside of school also stated that she finds it great that the student took the initiative to show his competence in a dialogue with her. I interpret her statement as showing that she is open and available and that she recognises the student’s own expertise. Waaktaar and Christie (2000) state that these are important factors to feel valued. In the final statement above, the teacher explains what was required to motivate two students to participate in the mini-company. When he delegated an assignment to them that he felt they could master, the passive students became personally involved and experienced that their contribution was important to the rest of the group. I interpret this as being comparable to what Ryan and Deci (2000) regard as a universal human need, namely to experience autonomy, belonging and to feel competent, in order to be motivated. The teacher seems to become personally involved in getting the students aboard. And through his relational-ethical judgement at the time, the teacher helped the students by including them in a way that made it possible for them to accept the invitation. This is in line with Lindseth (2014), who describes how we can demonstrate that we both see and recognise another person through wariness. In my
opinion, this teacher was a good example of how cooperative learning through the jigsaw method can be practised, as Johnson et al. (2002) describe.

Scharmer (2011) claims that to lead a U process rather than focusing on the finished painting or result we should be able to see the possibilities that present themselves on a blank canvas, because the future is created as it occurs. Whatever the finished product, the teachers must identify the opportunities inherent in the mini-company processes and see that the act of cooperation is ultimately the most important thing. Below are some statements that describe the significance of the activities that the group does together.

Success in each individual mini-company project occurs when the participants trust one another and begin to cooperate and work together. And it is also very important to listen to one another. These factors are decisive to success, in my opinion.

I felt that each member of the business felt an attachment to their tasks; and that was the key to success. They understood it themselves, and it made them happy. A successful business is not just 2-3 people, but a well-functioning team that works together.

In the above statements, teachers describe how important it is for the success of a group that the members of the group feel an obligation to their tasks and understand the work that is to be done. I interpret these statements as examples of cooperative learning (Johnson et al. 2002).

In the story below, a teacher describes how difficult he found it to work against another colleague’s style of leadership:

I had chosen that class as a mini-company class, and it was the first time I had them. In the class was a teacher, and he decided what everyone did. From 1st to 4th year (upper-secondary school) they had had that teacher. So, each time the students were to do something, they went to their teacher and asked: can I do it so and so, or can I have permission … Or the teacher would say: no, you can’t do that task, she/he is better at it, etc. And that was very difficult working against another colleague, because it was important that they changed the way they were used to think and act. The greatest success wasn’t that we went to the national finals, that was a bonus. The great success was that towards the end of the year, the class became a real group, where everyone could think for themselves.

The teacher says that he values to strengthen the individual student’s self-belief and group cooperation. I interpret this quote as a description of the different styles of leadership of two teachers, as Scharmer (2011) describes the levels in Theory U. As I see it, he regards the other teacher’s lack of trust and openness towards his students as contributing to the development of non-independent almost adult students. I see the teacher who decides everything for the students to be one who acts at the downloading-level and who listens as
I-in-me. The teacher explains in the quote how he managed to change the student group’s belief in themselves. By opening and trusting his students, he acted as a “midwife” for the individual students and for the group as a whole, as Scharmer (2011) claims can happen when a teacher leads with an open mind and will. The teacher also seems to be describing what Scharmer (2011) shows can occur to a group when it changes its social field and begins to act based on future possibilities rather than past experiences. The group can then be brought closer together, and each member can experience both personal and work-related triumph (Scharmer 2011).

### 6.4.4 The teacher role changes in a mini-company

Several teachers describe how they experience their role as a teacher as different in a mini-company compared to the other subjects that they teach. In the following statements, the teachers describe how they take on a mentoring role with students in mini-company:

*The difference is that I let the students work in groups, I mentor more (in a mini-company).*

*I try to be a friendly leader in my mini-company classes, the teacher is not a leader, but a friend who leads the students towards the completion of their goals.*

*I try to maintain a personal relationship with each of the students.*

In these quotes, teachers describe how they mentor, and one describes the experience of leading the students in a friendlier way in mini-company. To me, these statements show that the teachers value the interplay that exists in group work, and that they recognise each student by building relationships with them, which Lindseth (2014) identifies as decisive to help.

According to Ryan and Deci (2000), motivation can affect our feelings and engagement. Several teachers described how it can be frustrating to feel trapped between two interests. Increasing the acceptance of entrepreneurship as a subject to another teacher, was described as difficult:

*Some teachers are rigid. Individual teachers do not want to cut any of their syllabus.*

*We are going to have to work with the agendas that are in teachers’ heads.*

*When you teach ordinary subjects, you can use group work. But the main difference is that in other subjects you must teach in such a way that all the students acquire basic skills in each subject by the end of the year. In a mini-company, students can do different things; some groups learn a lot about marketing, others about sales, financing and economics. In the other subjects, everyone must go through the same syllabus.*
The two first quotes describe challenges that teachers experienced when trying to get their colleagues to see the value of students working in ways similar to a mini-company. The first two statements describe teachers who were less open to discuss new ways of planning curricula and teaching. In the context of Theory U (Scharmer 2011), these teachers could be considered as working at the downloading-level.

In the final quote, the teacher describes how she felt when time spent in group work conflicted with external demands for a common syllabus and teaching basic skills. She describes how external demands challenge her when it comes to making appropriate provision for individual students, which she finds easier to do working with a subject like a mini-company. Teachers in both countries described how the students in mini-company work hard towards various deadlines throughout the year, and that they often had a goal to participate in regional/national mini-company finals. The students often met outside school hours to work with mini-company. What the teacher seems to be describing concerns her impression that students are put under pressure to achieve results in other subjects than mini-company. I found this teacher to be interested and motivated for the mini-company method; what Ryan and Deci (2000) refer to as internally motivated. The teacher relates that she experienced a dilemma between mini-companies and the demands the students were encountering in other subjects. In other subjects she focused more on results than on students’ opportunities for reflection and trying out things together with others. I find the teacher’s description interesting in the light of the theories of Frøyland et al. (2016), Ryan and Deci (2000) and self-determination theory, in which the quality of education is equated to the individual student’s opportunity for active exploration together with other students. In Estonia, the school had started to develop different curriculums that emphasised the combination of theory and practical knowledge across subjects and by introducing entrepreneurial skills in other curricula.

### 6.4.5 Organisation of mini-company groups for students

Mini-company is organised somewhat differently in the two participating countries. Group sizes in mini-companies varied in Estonia, while in Italy it was common practice to have one business per class. All the teachers expressed the view that larger groups were challenging regarding the level of involvement of all students.

*The main goal is to experience how it is to work as a team, and to understand what they like to do on their own, what engages them, understand how they are to use scarce resources and use their time. In my opinion, it is not just that they learn something about marketing or how a business is organised, or through roles in mini-company. But they learn a lot about cooperating as a team, that they need to work together to achieve their goal. All students should have the opportunity to participate in these kinds of projects.*
The teacher explains his view that each individual student’s sense of value in the community is the most important criterion of success both for the individual and for the mini-company. Mini-companies are organized according to a template, and the students have various deadlines throughout the year that must be met to succeed. The teacher’s role is to support and help the students’ feelings of mastery during the mini-company processes. I interpret the statement as a good description of how the teacher needs to teach students to work together (Johnsen et al. 2000) to succeed in leading students through a U-process (Scharmer 2011).

Several teachers explain that the organisation of the groups is significant for everyone’s participation. In the following statements, some of the organisational challenges become apparent:

*The others are pushed somewhat into the background. And it’s difficult to organise all the groups in such a way that they are balanced.*

*In my opinion, the group is too large. At the start of the school year, the JA-resource suggested that the group could be split into 2-3 mini-companies, but I wasn’t so sure about that, because I thought it would mean a lot of work. But when I consider it now, we should have split the group into several mini-companies.*

In the above statements, teachers describe first how challenging it can be to find a balance between the correct tasks for an individual and their own ability to trust that the students will take responsibility if they are split into smaller mini-company groups. In the second statement, the teacher describes her own reflections, which I interpret to mean that she in hindsight reflected-on-action (Schön 2000) and sees that she could have split the group without creating more work, as she had first feared.

### 6.4.6 Cooperation and knowledge sharing between teachers

There are variations between the two countries in terms of how schools organise their teachers’ work with mini-company, and to what degree the teachers have time set aside to work together. In one of the countries, there was a tradition of team cooperation throughout the year, although during the previous year they had moved away from prioritising their own team meetings in favour of mini-company cooperation. The other country did not have the same level of obligatory team cooperation. Several people, however, expressed a desire to speak together more about their experiences from practice. Teacher cooperation was one of the themes over which participants reflected in the focus interview.
We don’t have any time set aside for us to speak about our experiences with mini-company. Last year, we had time for this, but not this year.

“mini-company, that’s something we discuss mostly during our coffee breaks. That’s when we can discuss challenges and find solutions.

There should be a coordinator who could coordinate so that we could share our experiences. Especially for those of us with little experience. Those of us in our first year probably need more support.

Such meetings require both formal and informal organisation. Teachers in both countries are describing here how group reflection can be an important step towards developing the individual’s practice (Schön 2000). The teachers stated that they wanted time to narrate and listen to each other’s experiences of practice to expand their own reflection. One teacher describes the significance of being able to talk about her experiences with others in this way:

I don’t know if it is only because of that (she told others about two of her students’ success story), but this year my experiences is that many of the teachers are participating in more businesses across subjects, to help the businesses with their websites. I find that telling these stories is a good teaching method; one that can teach and inspire others.

This teacher describes her belief that telling the story of students’ success can affect others’ inspiration to dare to take on new challenges. The teacher describes how, by talking about the success stories of others, she experienced that she both affected the students’ view of themselves and ensured that others (both students and teachers) were able to see possibilities of which they were previously unaware. According to Rismark and Solberg (2011), cooperation that enables joint reflection is the key to building cultures of learning amongst employees. They emphasise that teachers need time to reflect together and systems that enable knowledge sharing; and that development work based on staff input is an important factor in school development. Schön (2000) suggests that through reflecting-on-action it is possible to recognise repeated situations and contribute to changing the way one reflects-in-action. I interpret the above statement as an example of how reflecting with others and sharing practical experiences can contribute to changing a teacher’s reflection-on-action and reflection-in-action.

The findings from this study can be compared with the ICEE project’s quantitative findings for the 2015/2016 school year. In the latter, the teachers state that they would find it useful to have more time to talk and learn together, that they find that most students like to cooperate with other students, and that the students enjoy working with mini-companies even though it is challenging and time-consuming work.
6.4.7 Conclusion

Several teachers express the view that they find it meaningful to be on an equal footing with their students in the cooperative nature of a mini-company. They enjoy learning together with and from their students. Teachers find it unproblematic for them not to be the expert. In addition, teachers describe that the students can show their individual strengths through mini-companies when the teacher acknowledges and sees the individual. To get each student involved, the teacher needs to create autonomous learning environments that build on student skills and sense of belonging. Several teachers find mini-companies a well-suited arena for leading students in creative processes, as Scharmer describes in Theory U (2011). It is my view that the teachers are the key to each individual student perceiving the value of the subject, which is something that the teachers in this study say all students should have the opportunity to do. The method that Johnson et al. (2002) terms cooperative learning can be a pedagogic method that satisfies the interests of students and teachers in their mini-company work.

To improve work with mini-company, the teachers describe how they must support their students by building relationships with and customising assignments for each individual student from the beginning of the school year. The way that mini-companies are organised will influence whether they can get each student actively involved.

The participants describe how, by organising knowledge sharing between mini-company teachers, the school can support teacher reflection-on and in-action (Schön 2000). The teachers recount that they find it useful to hear one another’s stories. I found that teachers in both countries received recognition from colleagues when they shared positive and challenging practical experiences with one another in the focus group interviews.

The students’ ability to value and support one another, as Johnson et al. (2002) emphasises, is a cooperation skill that must be learned, and which requires the guidance of a teacher. My view is that for a teacher to be able to help students to open their minds, hearts and will, the teachers themselves must first go through a process of self-reflection to identify their blind spots, as Scharmer describes in Theory U (2011). The way a mini-company is organised is key for the opportunity that teachers must enable mastery, which again contributes to students’ personal growth in the work with mini-company.

According to Waaktaar and Christie (2000), the best help that an individual can have to like themselves is to be seen and heard by others. Johnson et al. (2002) describes how, through cooperative learning, students in mini-companies can be helped to feel seen and recognised for who they really are. The students can practise their own awareness in the context of meetings with others, something that Løgstrup (2010) and Lindseth (2014) identify as important to help others. Scharmer (2011) claims that groups or individuals that have moved through a U-process are more likely to repeat the practice many times. When teachers practise seeing themselves and their own blind spots, they simultaneously act as
good role models for their students. The teachers have a large amount of freedom and unique possibilities to acknowledge the strengths of individuals through mini-company work and can affect and raise the individual student’s awareness in relation to his or her mini-company group.

All twelve participants in this study expressed the view that entrepreneurial skills are concerned with skills for life and that all students need to acquire such skills. At the beginning of the interviews, when I asked if they could share a positive experience, several chose to discuss a concrete result from working with a mini-company, such as a business that had managed to reach the regional or national finals. But when asked to reflect how they experienced seeing their students’ strengths in mini-company work, and what they themselves had learnt, the focus changed from being about pride over results. Instead, it became about how the most important success factor for mini-company is the opportunity it provides the individual students who participate. Participants describe how mini-companies provide opportunities for personal growth through practical knowledge; opportunities that the school otherwise does not provide. Scharmer (2011) challenges schools to develop more practical education to prepare students for the future and life after school.

It is my view that teacher training in mini-company teaching could contain more knowledge of relationship-building. Increased knowledge in this area could enable teachers to reflect upon their own roles and obtain a greater understanding of what impact they can have on students’ opportunities to take part. Teachers need knowledge about pedagogic methods that can strengthen cooperation and increase participation opportunities for all students.

It is important that teachers experience the school administration as supportive, because teachers have differing backgrounds and motivations for working with mini-company. Several teachers describe how they experience increased motivation and mastery by having appropriate areas of responsibility when working with mini-company. I consider that cooperative learning is also transferable to development work in a staff group.

Motivation and knowledge sharing are core findings in this study. In my opinion, a structured organisation of time for reflection between teachers would be able to have a positive effect on the individual’s feelings of mastery and engagement in subjects like mini-company. Inspired by Lea Lund Larsen (2015), I would regard it as appropriate to examine in more depth how teachers talk to each other about mini-company. Research by Larsen (2015) indicates that teachers do not use didactic language when describing their own practice, and the study shows that the school could achieve pedagogical gains by more general didactic reflection between teachers in their everyday school lives.
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A multinational study of mini-company experiences:
Findings from three master student projects

This research memo presents empirical findings from three master student projects in the Innovation Cluster for Entrepreneurship Education. The field studies were done in January and February 2017, and they focused on students’ and teachers’ experiences with the JA Company Programme (CP). The three areas investigated were teachers’ reflections on their role as mini-company teachers, whether mini-company participation can increase students’ self-efficacy, and whether mini-companies are a suitable working method for students with special needs.

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